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C/O NeuDimenxion

B-5-8 Plaza Mont Kiara, Mont Kiara, 50480 Kuala Lumpur

 msncongress2024@gmail.com  +60 12-841 1893



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Submission ID: A-0008
Poster Viewing

Category: Paramedic
Topic: Haemodialysis

EMOTIONAL INTELLIGENCE AS A MEDIATING ROLE BETWEEN ANXIETY AND DEPRESSION AMONG END STAGE RENAL DISEASE PATIENTS

Kogila Supramanian¹, Mahendran Sekar¹, Zahari Ishak¹, Rashidah Sharuddin¹

¹University Kuala Lumpur

Introduction:

By 2030, the global population of chronic kidney disease (CKD) patients living on dialysis may exceed two million. Numerous studies have unveiled compelling associations between depression, anxiety, and end-stage renal disease (ESRD), which is the final stage of CKD. This study aimed to evaluate emotional intelligence as a mediating factor that links anxiety to depression among ESRD patients receiving hemodialysis treatment.

Methodology:

A total of 237 respondents participated in this study. The MSCEIT test was administered to measure emotional intelligence, while Beck's Anxiety Scale was employed to assess anxiety levels and Beck's Depression Scale was used to gauge depression levels.

Results:

Most respondents were male ($n=123$, 51.9%), with mean age was 48 ($SD=9.341$). The analysis revealed that 120 participants (50.6%) exhibited low anxiety levels, whereas the remaining 117 participants experienced moderate anxiety levels. Concerning depression, 95 participants (40.1%) were categorized as experiencing moderate depression, 85 (34.6%) displayed mild mood disturbance, 50 (21.1%) were in the borderline clinical depression range, five (2.1%) exhibited severe depression, and only five (2.1%) fell within the normal category. The assessment of emotional intelligence indicated that 208 participants (87.8%) were in the developmental stage. According to the regression analysis, anxiety has a significant positive effect on depression among ESRD patients. In turn, depression was found to have a strong negative correlation with educational background, suggesting an inverse relationship between the two variables. Additionally, emotional intelligence demonstrated significant negative relationships with both depression and anxiety. A low level of emotional intelligence significantly mediates the relationship between anxiety and depression among ESRD patients.

Conclusion:

This research supports the notion that anxiety can lead to depression among ESRD patients when they lack emotional intelligence, which adversely impacts ESRD patients' quality of life.

Submission ID: A-0010
Poster Presentation

Category: Doctor
Topic: Glomerulonephritis

CLINICAL PROFILE AND OUTCOME OF PATIENTS WITH C3 DOMINANT GLOMERULONEPHRITIS- EXPERIENCE FROM A TERTIARY CARE CENTRE IN SOUTHERN INDIA

Vishrut Khullar¹, Ravindra Prabhu A.¹, Shankar Prasad N.¹, Dharshan Rangaswamy¹, Indu Ramachandra Rao¹, Srinivas Vinayak Shenoy¹, Mohan V. Bhojaraja¹, Gaurvi Piplani²

¹ Department of Nephrology, Kasturba Medical College, Manipal Academy of Higher Education, Manipal, Karnataka, India ² Department of Pathology, Kasturba Medical College, Manipal Academy of Higher Education, Manipal, Karnataka, India

Objectives:

To assess baseline demography, kidney outcomes, mortality in patients of Complement 3-Dominant Glomerulonephritis.

Methods:

Observational, Single centre study from a pre-specified cohort. All consecutive patients having biopsy proven C3-Dominant Glomerulonephritis from January 2013 to July 2023 were included. Case records were used to collect demography, kidney biopsy findings, laboratory data, details of treatment. As per biopsy findings and reports, they were classified into, Dense Deposit Disease (DDD), C3 Glomerulonephritis (C3GN), Membranoproliferative Glomerulonephritis (MPGN) pattern and Infection-related Glomerulonephritis (IRGN). Complete remission was defined as return of normal kidney function and proteinuria <500mg per day. Partial remission was defined as decline of proteinuria by 50% and less than 3g per day with improved renal function. Outcomes analysed were remission, death, progression to CKD or ESKD. Statistical analysis was done using SPSS version 29.

Results:

Of 2082 biopsies, 127(6.1%) had C3-Dominant Glomerulonephritis of which 46(36.22%) had IRGN, 2(1.5%) had DDD, 35(27.5%) had C3GN and 44(34.6%) had MPGN pattern. Mean follow up time was 23.6 months. Crescentic Glomerulonephritis was seen in 41(32.3%) cases. 59(46%) patients received steroids with mycophenolic acid or cyclophosphamide. 67(52.7%) patients received renin angiotensin system blockers. 80(63%) patients had decreased eGFR at entry. At last follow-up, 71(55.8%) progressed to CKD of which 26(20.4%) developed end stage kidney disease (ESKD) and 14(11%) patients died. IRGN patients had significantly better serum albumin at 6 months, eGFR at 1 year and eGFR at last follow-up compared to other 3 groups. Among IRGN patients, 23 of 46(50%) patients achieved complete remission, 11(23.9%) progressed to CKD among which 2(4.3%) progressed to ESKD.

Conclusion:

C3-Dominant glomerulonephritis was seen in 6.1% of patients undergoing kidney biopsies. 63% patients had decreased eGFR at presentation. IRGN has lesser progression to CKD and ESKD. Half of the IRGN cases resolved but 23.9% progressed to CKD and 4.3% progressed to ESKD. Mortality was 11%.

Submission ID: A-0011
Poster Viewing

Category: Doctor
Topic: Infections

SPECTRUM AND OUTCOME OF POST KIDNEY TRANSPLANT URINARY TRACT INFECTIONS- A SINGLE CENTER EXPERIENCE FROM SOUTHERN INDIA

Vishrut Khullar¹, Ravindra Prabhu A.¹, Shankar Prasad N.¹, Dharshan Rangaswamy¹, Indu Ramachandra Rao¹, Srinivas Vinayak Shenoy¹, Mohan V. Bhojaraja¹, Gaurvi Piplani²

¹ Department of Nephrology, Kasturba Medical College, Manipal Academy of Higher Education, Manipal, Udipi, Karnataka, India ² Department of Pathology, Kasturba Medical College, Manipal Academy of Higher Education, Manipal, Udipi, Karnataka, India

Objectives:

To describe spectrum, complications, overall graft and patient outcomes of post-kidney transplant recipients with UTIs.

Methods:

Single-center, retrospective, cross-sectional observational study. Case records of all consecutive patients undergoing kidney transplantation from January 2011 to December 2023 were analyzed. UTI was diagnosed based on symptoms and culture positivity. Causative organisms, number of UTIs and their temporal relation with transplant date was checked. Recurrent UTI was defined as 2 or more episodes within 6 months or 3 or more episodes within 1 year. Graft pyelonephritis was diagnosed based on radiological and/or histopathological findings. Outcomes studied were graft function at latest follow-up, graft loss and mortality.

Results:

Of 225 patients who underwent kidney transplantation between January 2011 and December 2023, 189(84%) were Living-donor kidney transplants and 36 were Deceased-donor kidney transplants and 67 patients (29.8%) patients had 135 UTIs. Mean time to first episode was 6.4 months. Among first episodes, 4 UTIs were polymicrobial and total number of polymicrobial UTIs were 10. 25 patients (37%) had recurrent UTI and 21 patients (31.3%) had graft pyelonephritis. Incidence of graft pyelonephritis was associated with poor graft outcome (p-value:0.03). Most common pathogen was *Klebsiella pneumoniae* (45.1%). Most used antibiotic was Cefoperazone-Sulbactam. 23 episodes of UTI(17.7%) required treatment with more than 1 antibiotic due to polymicrobial growth or multi drug resistant organism. Total number of UTI events in first 3 months post-transplant were 64(47.4%). Mean follow-up duration was 37.8months. 17 patients (25.3%) with UTI had chronic allograft dysfunction, 5 patients (8.9%) had graft loss and 14 patients (20.9%) expired.

Conclusion:

UTI is common post-kidney transplant. Majority of UTI occurs within first 3months. *Klebsiella pneumoniae* was most common pathogen. Graft pyelonephritis was associated with poor graft outcome. Post-transplant UTIs are associated with chronic allograft dysfunction, graft loss and high all-cause mortality.



Submission ID: A-0012
Poster Viewing

Category: Doctor
Topic: Infections

NAVIGATING THE COMPLEXITIES OF CHRONIC DIARRHEA IN END-STAGE KIDNEY DISEASE: A CASE OF CMV-ASSOCIATED CHALLENGES.

Ahmad Eijas ¹, Tharshannia B. ¹,

¹ Department of Nephrology, Hospital Tengku Ampuan Rahimah, Selangor, Malaysia

Introduction:

Chronic diarrhea in patients with end-stage kidney disease (ESKD) poses a clinical challenge due to multifactorial considerations, including renal dysfunction, dietary restrictions, comorbidities, and fluid/electrolyte imbalances. Cytomegalovirus (CMV) infection complicates management, hindering favorable outcomes. We present a case of persistent hypokalemia and chronic diarrhea in an ESKD patient complicated by CMV infection, illustrating diagnostic and therapeutic hurdles.

Case Presentation:

A 67-year-old Chinese gentleman with ESKD on hemodialysis reported a three-week history of diarrhea and unintentional weight loss. No external causative factors were identified. Clinical examination and blood tests indicated normal thyroid function and no ongoing infection. Stool exams were negative. Potassium levels dropped to 1.8 mmol/L, requiring frequent correction. Despite supportive therapies, symptoms persisted. Colonoscopy revealed multiple aphthous ulcers, diagnosed as inflammatory bowel disease. Histopathological findings showed chronic active colitis with negative CMV staining. Despite all efforts, profuse diarrhea continued. A repeat colonoscopy confirmed CMV colitis. Intravenous ganciclovir was initiated, resolving diarrhea and hypokalemia. After completing 3 weeks of treatment, the patient was discharged home well.

Discussion:

Managing chronic diarrhea in ESRD patients demands consideration of diverse factors, including fluid/electrolyte imbalances. CMV infection exacerbates symptoms, warranting prompt antiviral therapy initiation. Multidisciplinary collaboration optimizes patient care.

Conclusion:

This case highlights the complexities of managing chronic diarrhea and electrolyte imbalances in ESKD patients, especially with CMV infection. A comprehensive approach is pivotal for favorable outcomes.

Submission ID: A-0013
Poster Presentation

Category: Doctor
Topic: Haemodialysis

EFFECTS OF ALPHA-LIPOIC ACID SUPPLEMENTATION ON INFLAMMATION AND OXIDATIVE STRESS MARKERS IN PATIENTS WITH CHRONIC KIDNEY DISEASE AND DIABETIC NEPHROPATHY: A SYSTEMATIC REVIEW AND META-ANALYSIS

Christina Permata Shalim¹, Yenny Kandarini², I Gde Raka Widiانا², Putu Amanda Widiada³

¹Siloam Hospitals Kebon Jeruk, Jakarta, Indonesia

²Division of Nephrology and Hypertension, Department of Internal Medicine, Faculty of Medicine, Udayana University/Prof. Dr. I.G.N.G Ngoerah Hospital, Denpasar, Bali, Indonesia

³Department of Internal Medicine, Faculty of Medicine, Udayana University, Denpasar, Bali, Indonesia

Introduction:

Alpha-lipoic acid (ALA) is a naturally occurring antioxidant that has been shown to ameliorate oxidative stress and inflammation in various disease conditions. Numerous studies have investigated the beneficial effects of ALA supplementation on inflammation and oxidative stress markers in patients with chronic kidney disease (CKD) and diabetic nephropathy (DN), but the results have been inconsistent.

Objective: This meta-analysis aims to pool available evidence from relevant studies to evaluate the effects of ALA supplementation on inflammation and oxidative stress markers in patients with CKD and DN.

Methods:

A systematic search of the electronic databases PubMed, Science Direct, and Cochrane Library was conducted for randomized controlled trials (RCTs) in adult patients with CKD and DN that had been given ALA supplementation. The primary outcomes were reduction of inflammation and oxidative stress markers. Mean differences were pooled using random-effects meta-analysis.

Results:

Eleven RCTs involving 895 patients were included in this study. The pooled analysis showed that ALA supplementation significantly reduced hs-CRP (pooled MD -2.13 [p = 0.04, 95% CI: -4.21 to 0.05] and IL-6 (pooled MD -6.54 [p = 0.03, 95% CI: -12.27 to -0.81]) among individuals with CKD and DN. The results remained significant even after subgroup analysis. However, TNF- α and malondialdehyde did not change significantly compared with the control group.

Conclusion:

ALA supplementation significantly reduced hs-CRP and IL-6, but not TNF- α and malondialdehyde in patients with CKD and DN.



Submission ID: A-0014
Poster Viewing

Category: Doctor
Topic: Others : Critical Care Nephrology

THE INCIDENCE, ASSOCIATIVE FACTORS, AND OUTCOMES OF ACUTE KIDNEY INJURY IN INTENSIVE CARE UNIT AT A TERTIARY CENTRE IN MALAYSIA

Kuan Yee LIM^{1,2}, Muhammad Yusuf ABU SHAMSI², Ruslinda MUSTAFAR^{1,2}, Mohd Rizal ABDUL MANAF³, Raha ABD RAHMAN⁴, Abdul Halim ABDUL GAFOR^{1,2}

¹Department of Medicine, Faculty of Medicine, Universiti Kebangsaan Malaysia, Malaysia

²Department of Medicine, Hospital Canselor Tuanku Muhriz, Malaysia

³Department of Public Health Medicine, Faculty of Medicine, Universiti Kebangsaan Malaysia, Malaysia

⁴Department of Anaesthesiology, Faculty of Medicine, Universiti Kebangsaan Malaysia, Malaysia

Introduction:

Acute kidney injury (AKI) is common among hospitalized patients, even more in those who require intensive care unit (ICU) admission. AKI in hospitalized patients results in a longer duration of hospital stay, dialysis dependence, and significantly higher mortality especially among the critically ill patients in short-term, and an increased risk of progression to chronic kidney disease (CKD) and end-stage kidney disease (ESKD) in long-term.

Methods:

A prospective observational study of patients who were admitted to the ICU.

Results:

310 patients were enrolled in this study. 49.4% of patients had AKI during the hospitalization with majority of them with stage 1 AKI (43.8%). Male gender, previous episodes of AKI within six months, and SOFA score were the independent risk factors of AKI in ICU patients. A sequential organ failure assessment (SOFA) score of 3.5 and above can predict AKI development among ICU patients with a sensitivity of 81.0% and specificity of 58.6%. ICU patients with AKI had statistically significant poorer outcomes. Days of hospitalization before ICU admission, length of ICU stay, duration of mechanical ventilation, and no renal recovery were the independent risk factors of mortality in ICU patients. Among ICU patients with AKI who required kidney replacement therapy (KRT), a delay in KRT beyond 24 hours after Nephrology referral resulted in statistically significant higher mortality rate. SOFA score of 6.5 and above can predict KRT requirement for AKI in ICU patients with a sensitivity of 70.3% and specificity of 56.0%.

Conclusion:

AKI occurs in nearly half of patients admitted to ICU, leading to poorer outcomes, especially in those treated with delayed KRT. Hence, it is utmost important to recognise the need of KRT in ICU patients with AKI. SOFA score plays an important role to predict AKI development and KRT requirement in ICU patients.



Submission ID: A-0016
Poster Viewing

Category: Doctor
Topic: Nutrition

DOES ROUTINE DIET AMONG ESKD PATIENTS IN KELANTAN CONSISTENT WITH CKD-SPECIFIC DIETARY RECOMMENDATION?

Mohd Yusran YUSOFF¹, Firdaus MUBING², Wan Hasnul Halimi WAN HASSAN³

¹Clinical Research Centre (CRC) Kelantan ²Klinik Kesihatan Gunong
³Nephrology Department, Hospital Raja Perempuan Zainab II

Introduction:

Dietary modification is crucial in reducing the risk of chronic kidney disease (CKD) related complications. COVID-19 has interrupted regular encounter between dietician and patients which may affect their awareness. The aim of the study is to assess consistency between patients' routine diet and CKD-specific dietary recommendations.

Methodology:

This is a cross sectional study involving ESKD patients attending haemodialysis unit in two tertiary centres (HRPZII & HUSM) in Kelantan from June until December 2021. Inclusion criteria include patient aged 18 years old and above, on regular haemodialysis for more than 3 months and able to comprehend Malay language. Those not consented for the study and in poor health were excluded. A Self-administered questionnaire consists of baseline demographic data, medical history, and validated Malay food frequency questionnaire (FFQ) was used. CKD diet score was calculated based on dietary intake from FFQ. Good consistency to CKD-specific dietary recommendations is defined as CKD diet score ≥ 16 . Data was analysed using SPSS version 25. Univariable analysis was performed to identify associated factors for good consistency.

Result:

A total of 212 patients were included for analysis. Mean age was 49.74 years old (SD=14.14). Most of them were Malays (97.2%) and 51.4% were female. The proportion of good consistency was 63.7% (134 patients). Those with education level of diploma & above demonstrated a non-statistically significant higher proportion of good consistency (72%) compared to those with up to school level (59.1%), ($P=0.062$). Patients with good consistency had significantly lower mean BMI compared to those with poor consistency (23.06 kg/m² vs 26.19 kg/m², $P<0.001$).

Conclusion:

Our study showed that proportion of good consistency to CKD-specific dietary recommendations is not satisfactory. Continuous education on diet modification is necessary especially among those with higher BMI. Further study may explore the outcome of compliance to CKD-specific dietary recommendations.

Submission ID: A-0017
Oral Presentation

Category: Paramedic
Topic: Others : Acute Kidney Injury

OPTIMIZING PERIOPERATIVE CARE: THE IMPACT OF NURA-AKI TOOL ASSESSMENT ON EARLY AKI RISK RECOGNITION IN SURGICAL PATIENTS

Nooreena YUSOP¹, Samsiah MAT¹, Muhammad Ishamuddin ISMAIL², Ruslinda MUSTAFAR³

¹Faculty of Nursing, University College of MAIWP International, Malaysia

²Head of Cardiothoracic, Head of Lungs Centre, Hospital Canceledor Tuanku Muhriz, Malaysia

³Nephrology Unit, Hospital Canceledor Tuanku Muhriz, Malaysia

Introduction:

Acute Kidney Injury (AKI) is a prevalent and serious complication among surgical patients, contributing to increased morbidity and mortality. This study aimed to assess the effectiveness of the Nursing Risk Assessment of Acute Kidney Injury (NURA-AKI) tool in detecting AKI risk among surgical patients at Hospital Canceledor Tuanku Muhriz (HCTM) Kuala Lumpur, Malaysia.

Methods:

The prospective study included 200 patients and involved seventy-five surgical nurses who underwent an AKI nursing risk assessment education program. The assessments were conducted for new admissions, intra/inter-facility patient transfer, and returning from the operating theater, encompassing emergency/ elective surgeries and major/minor surgeries from July 2022 until January 2023. The assessment is based on three series: one month, three months, and six months after the education program.

Results:

The NURA-AKI tool demonstrated significant predictive ability, identifying 33.5% (n=67) as "At Risk" of AKI, 20.5% (n=41) as "Borderline", and 46.0% (n=92) as "No Risk" based on comprehensive assessment at one, three, and six months post education. Specific risk factors including hypertension, diabetes mellitus, cardiovascular disease, chronic kidney disease, and sepsis were associated with a high risk of AKI with correct prediction values ranging from 64.2% to 75.6% (p<0.05). Multinomial logistic regression analysis identified laboratory parameters such as serum creatinine >26.5mmol/L within 48 hours, Albumin level, proteinuria >80g/dL, and clinical presentations of dehydration/blood loss as significantly increasing the likelihood of AKI risk (p<0.05). The overall accuracy of NURA-AKI tool in detecting AKI risk was 81.3%, highlighting its potential as valuable screening tool in the surgical setting.

Conclusion:

These results demonstrated the importance of integrating the NURA-AKI tool into routine nursing assessments for surgical patients, emphasizing the impact of early detection on patient outcomes through timely interventions. The study highlights the feasibility of the effectiveness of NURA-AKI tool utilization by surgical nurses.



Submission ID: A-0018
Poster Viewing

Category: Doctor
Topic: Glomerulonephritis

CASE REPORT: ACUTE KIDNEY INJURY IN SYSTEMIC LUPUS ERYTHEMATOSUS ASSOCIATED WITH MINIMAL CHANGE GLOMERULOPATHY

Min THAM¹, Wenjiun LIU², Meisian FU³, Hoejiun WONG³, Xueqi TAN⁴, Aizat HAFIZ⁵,
Vasavan YABITHA⁶

¹ Department of Nephrology, Hospital Sultanah Aminah Johor Bahru ² Department of Nephrology, Hospital Sultanah Aminah Johor Bahru ³ Department of Nephrology, Hospital Sultanah Aminah Johor Bahru ⁴ Department of Nephrology, Hospital Sultanah Aminah Johor Bahru

⁵ Department of Nephrology, Hospital Sultanah Aminah Johor Bahru ⁶ Department of Histopathology, Hospital Sultanah Aminah Johor Bahru

Introduction:

Lupus nephritis (LN) is a common presentation in systemic lupus erythematosus (SLE). Minimal change disease (MCD) in the setting of SLE is an under-recognized entity in terms of diagnosis as well as management, as most of the time, it is being misinterpreted as Class I LN. It can occur without any apparent lupus activity.

Methods:

A retrospective observational case study was conducted

Results:

55 years old Malay lady came to our attention in June 2023. She has underlying diabetes mellitus and hypertension, presented in the state of fluids overload. Her blood investigations on presentation as following: blood urea nitrogen 19.4 mmol/l, creatinine 159 μ mol/L, serum albumin (SA) 14 g/L, urinary protein 3+ with nil hematuria, 24 hours urine protein 0.6g (only 70ml of urine volume), HbA1c 4.9%. She had a normal baseline creatinine of 55 μ mol/L in 2022. She developed Acute Kidney Injury (AKI) rendered her requiring hemodialysis. She was on total 3 months of hemodialysis before renal recovery set in. In early January, she was again presented with nephrotic syndrome complicated with AKI. Urine protein creatinine ratio unquantifiable. This time around she required hemodialysis. Repeated autoimmune panel shown positive Anti Nuclear Antibody (ANA) and double stranded DNA (dsDNA). A renal biopsy was performed at this setting. Unexpectedly, her glomeruli showed only mild changes with absent of immune complex deposition on immunofluorescence study. Overall favours minimal change glomerulopathy. She was started on prednisolone as well as mycophenolate mofetil. She responded as serum creatinine normalise and urinary protein was trace on subsequent follow up.

Conclusion:

We reported a case of MCD with concurrent SLE who developed twice severe kidney injury requiring temporary renal replacement therapy. The rarity of such cases will rely on case reports showing treatment outcome. Renal biopsy is invaluable in evaluating unusual presentation or treatment responses of glomerular disease.

Submission ID: A-0019
Poster Viewing

Category: Doctor
Topic: Glomerulonephritis

ANTINEUTROPHIL CYTOPLASMIC ANTIBODY-ASSOCIATED VASCULITIS PRESENTING AS RAPIDLY PROGRESSIVE GLOMERULONEPHRITIS: INSIGHTS FROM A SINGLE-CENTER EXPERIENCE

Kavitha Appava¹, Ching C.H¹, Mohammad F.A¹, Ong Y.C¹, Ku Ruziana¹, Alwin Tong¹, Adib M.I¹

Nephrology Department, Hospital Sultanah Bahiyah, Kedah, Malaysia.

Introduction:

Antineutrophil cytoplasmic antibody-associated vasculitis (AAV) presents a formidable challenge in autoimmune diseases, with rapidly progressive glomerulonephritis (RPGN) posing a particularly grave threat. Our study aims to enhance understanding of AAV-related renal disease and inform clinical decision-making by evaluating management strategies and outcomes.

Methodology:

We conducted a retrospective cohort study at our center, analyzing medical records of eight patients with RPGN secondary to AAV from January 2023 to December 2023. Patients with incomplete records were excluded.

Results:

The cohort had a mean age of 48 years, with 75% being male. Most patients (75%) were positive for C-ANCA/anti-PR3, and 25% for P-ANCA/anti-MPO. Half had pulmonary hemorrhage, indicating significant pulmonary involvement. P-ANCA positivity correlated with severe presentation, but renal function at diagnosis did not significantly affect recovery. Among the 8 patients included in the study, 5 completed the prescribed treatment regimen, consisting of 7 cycles of plasma exchange (PLEX) and oral cyclophosphamide for a duration of 3 months. Following this intensive therapy, these patients were transitioned to maintenance therapy with azathioprine. Notably, of these 5 patients who completed the treatment protocol, 4 (80%) experienced a favorable clinical outcome, characterized by complete recovery of renal function to baseline while one patient awaits renal recovery on hemodialysis. Among the patients who did not complete the treatment protocol, two due to treatment refusal, one due to delayed diagnosis, all passed away.

Conclusion:

While P-ANCA positivity correlated with severe presentation, renal function at diagnosis did not affect recovery. Treatment refusal and delayed diagnosis led to adverse outcomes. Early recognition and aggressive management are crucial for improving prognosis in AAV-related RPGN.

Submission ID: A-0021
Poster Viewing

Category: Doctor
Topic: Paediatric Nephrology

RENAL EFFECTS ON CHILDREN'S HEART (REACH), A PROSPECTIVE OBSERVATIONAL STUDY ON CARDIAC DYSFUNCTION AMONG PAEDIATRIC CKD PATIENTS

Nur Aida Adnan¹, Yap Yok Chin¹, Amelia Bt Alias¹

Department of Paediatrics , Tunku Azizah Hospital (Kuala Lumpur Women and Children Hospital),
Kuala Lumpur, Malaysia

Introduction:

Cardiorenal syndrome is a well-known entity whereby heart and kidney dysfunction coexist and exert bidirectional enforcement. Though well described in the adult population, little is known about how paediatric chronic kidney disease (CKD) affects cardiac function, with most of the data restricted to case report/series. Our objective was to determine the prevalence of left ventricular systolic and diastolic dysfunction among children with CKD with and determine possible associations.

Methodology:

We recruited 39 children, aged 2-18 years old with $eGFR \leq 45 \text{ mL/min/1.73 m}^2$ and performed transthoracic echocardiography to evaluate the left ventricular systolic and diastolic function. They had serum measurement at baseline and were followed up for 6 months to record the incidence of cardiovascular events and death.

Results:

Among the 39 children recruited, 29 (74.3%) were on dialysis with 24 (82.8%) of them being on peritoneal dialysis. Left ventricular hypertrophy (LVH), diastolic dysfunction (LDD), systolic dysfunction (LSD) and systolic and diastolic dysfunction (LSDD) was found at a prevalence of 37.9%, 24.1%, 17.2% and 13.8% respectively among the dialysis group but none in the pre dialysis group. Inadequate blood pressure (BP) control was significantly associated with LVH ($p=0.001$), LDD ($p=0.004$), LSDD ($p=0.016$) but no significant association was found with presence of anaemia, metabolic bone disease, ckd stage, RAAS blockade, uric acid or total cholesterol level. There were significant association with cardiovascular events and death with LVH ($p=0.022$), LDD ($p<0.001$), LSD ($p=0.006$) and LSDD ($p<0.001$).

Conclusion:

Tight BP control is imperative in the management of children on dialysis to prevent cardiac changes that is associated with worse prognosis and outcome.

Submission ID: A-0022
Poster Viewing

Category: Doctor
Topic: Haemodialysis

EXPANDED HAEMODIALYSIS AND ITS EFFECTS ON HAEMODIALYSIS PATIENTS - SINGLE CENTRE RETROSPECTIVE STUDY.

S. Jayakumar¹, Zachary L.C.W¹, Jason W², Chelsia C.B², Cheng M.C², Liew Y.F².

^{1,2}Department of Nephrology, Hospital Pulau Pinang.

Background:

The introduction of expanded hemodialysis (HDx) has stimulated new interest in potential improvements in long-term outcomes in patients undergoing chronic hemodialysis. Recent data suggest that increased removal of large middle molecules may improve clinical outcomes through an impact on inflammation and reduce their adverse effects on biological systems. Our aim was to study the effects on hemodialysis patients who were started on expanded hemodialysis (HDx).

Methodology:

A retrospective study on patients with end-stage kidney disease (ESKD) on chronic hemodialysis (HD) followed up at Penang Hospital. Patients who were on expanded hemodialysis (medium cut-off (MCO) dialysis membrane) were identified. Those who were on high-flux hemodialysis (HF-HD) for at least one year before switching to expanded HD were included in the study. Patients' biochemistry, erythropoietin stimulating agents (ESA) requirements and dialysis adequacy prior to switching to expanded HD were compared with those one year after switching to expanded HD.

Results:

A total of seven patients with a mean age of 58.1±8.8 years were included in the study. No statistically significant changes noted in the biochemistry parameters were noted at one year post conversion to HDx although the mean hemoglobin and albumin levels were increased from 10.2±1.25 g/dL and 33.8±2.97g/L on HF-HD to 11.6±1.53 g/dL and 35.0±3.82g/L on HDx (p=0.497 and p=0.644 respectively). Serum phosphate decreased from 1.7±0.52 to 1.5±0.59 mmol/L (p=0.644). Among the 7 patients studied, no changes in ESA requirements were noted in 5 patients while on the other 2 patients, ESA requirements reduced from 6000 unit/week to 4000 unit/week after switching to Hdx. No changes were noted in their dialysis adequacy.

Conclusion:

Switching to HDx seems to show a potential positive effect on hemoglobin, albumin, phosphate and ESA requirements in 12 months. These results need to be confirmed in larger randomized clinical trials.



Submission ID: A-0023
Poster Viewing

Category: Doctor
Topic: Paediatric Nephrology

PRIMARY NEPHROTIC SYNDROME COMPLICATED BY CONGENITAL PLEURO-PERITONEAL FISTULA: A CASE REPORT

Nur Aida Adnan¹, Caroline Eng²

Department of Paediatrics, Sabah Women and Children Hospital, Kota Kinabalu, Sabah, Malaysia
Department of Paediatrics, Tuanku Ja'afar Hospital, Seremban, Negeri Sembilan, Malaysia

Pleuro-pleural communication (PPC) is well described among adults undergoing peritoneal dialysis though it's rarely reported in children. We present a 10 year old predialysis boy with steroid resistant nephrotic syndrome who presents with recurrent massive right pleural effusion of transudative nature. Peritoneal scintigraphy with Tc-99m DTPA confirmed the presence of PPC. He was treated conservatively with thoracentesis, diuretics and tight fluid control and did not show signs of pleural fluid reaccumulation. To our knowledge, this is the first reported case of PPC detected in a child who is not on dialysis.



Submission ID: A-0024
Oral Presentation

Category: Paramedic
Topic: Others : Medication adherence

ADHERENCE TO ORAL SODIUM BICARBONATE TABLETS VERSUS POWDERED SOLUTIONS AMONG PRE-DIALYSIS CHRONIC KIDNEY DISEASE PATIENTS

Jaime Yoke May CHAN (1), Farida ISLAHUDIN (1), Mohamad MAKMOR-BAKRY (1&2), Nurul Ain MOHD TAHIR (1), Clare Hui Hong TAN (3)

1 Centre for Quality Medicine Management, Faculty of Pharmacy, Universiti Kebangsaan Malaysia, Kuala Lumpur, Malaysia 2 Faculty of Pharmacy, Universitas Airlangga, Surabaya, Indonesia 3 Nephrology Department, Hospital Umum Sarawak, Ministry of Health, Sarawak, Malaysia

Introduction:

Long-term adherence and persistence to medication regimens is vital yet challenging in chronic kidney disease (CKD) management. Oral sodium bicarbonate is used as treatment for metabolic acidosis in CKD patients. The common formulation available in government hospitals is powdered form which requires reconstitution to solution before use. This poses challenges due to the inconvenience, palatability and gastrointestinal symptoms which may negatively impact treatment adherence and subsequently affect clinical outcomes.

Methods:

This study investigated the adherence and potential factors associated with adherence to oral sodium bicarbonate therapy (tablets versus powdered solutions) in pre-dialysis CKD adults with metabolic acidosis from five government hospitals. A prospective, multi-centered cross-sectional design was employed. Patients' demographics, clinical characteristics, and self-reported adherence to each individual medications (calculated based on the formula: $[(\text{prescribed doses} - \text{missed doses}) / \text{total prescribed dose}] \times 100\%$), were collected.

Results:

Two hundred and three patients were analysed. The median number of medications taken daily were 8 (interquartile range [IQR] 3). The majority (n=158, 78%) received powdered solutions with a median dose of 2g (IQR, 1.5g) per day. Adherence specifically to sodium bicarbonate therapy was significantly higher in the tablets group (n=40, 88.9%) compared to the powdered solutions group (n=112, 70.9%) (p=0.014). Among the factors associated with adherence was the type of formulation and duration of sodium bicarbonate therapy. Those on tablets were 3.8 times more likely to be adherent compared to those on powdered solutions (OR 3.81, 95% CI 1.332-10.87, p=0.013) and the odds of adherence to therapy increased by 8.4% (OR 1.084, 95% CI 1.019-1.154, p=0.011) for every additional month that patients were on sodium bicarbonate therapy.

Conclusion:

These findings suggest that the formulation of medication can significantly impact adherence to treatment. Switching oral sodium bicarbonate treatment from powdered to tablet formulation can improve adherence and may potentially lead to better clinical outcomes.



Submission ID: A-0025
Poster Viewing

Category: Doctor
Topic: Glomerulonephritis

OUTCOME OF INTRAVENOUS CYCLOPHOSPHAMIDE INDUCTION THERAPY AMONG LUPUS NEPHRITIS PATIENTS IN HOSPITAL MELAKA, MALAYSIA

Huang Hin Chin¹, Yon Lek Yap², Lin Keong Soh¹, Sun Quan Ee¹, Xun Ting Tiong⁴,
Zee Yun Ong³, Ban Chai Peng¹

1. Department of Nephrology, Hospital Melaka, Malaysia
2. Department of Internal Medicine, Hospital Melaka, Malaysia
3. Department of Pharmacy, Hospital Melaka, Malaysia
4. Clinical Research Centre, Hospital Umum Sarawak, Malaysia

Introduction:

Lupus Nephritis (LN) is a common manifestation of systemic lupus erythematosus (SLE), which can cause kidney failure if left untreated. This study aims to determine outcome of LN patients who were treated with intravenous cyclophosphamide in a tertiary center in Malaysia.

Method:

This is a retrospective observational study. We investigated treatment-naïve, biopsy proven LN patients who seek treatment at Hospital Melaka, Malaysia from 2017 to 2022. Demographic information and clinical data were gathered from patient's clinical notes. SPSS Statistics version 17.0 was used for data analysis.

Results:

This cohort (n=53) mainly consists of female (88.7%), with mean age of 33 years old and Malay as the predominant ethnicity (75.5%), followed by Chinese (18.9%). The common clinical presentations included asymptomatic proteinuria and haematuria (54.7%), nephrotic syndrome (22.6%) and acute kidney injury (32.1%). This cohort consisted of LN class III (39.6%), class IV (49.1%) and class V (11.3%). A total of 49 patients received induction regime either with steroid plus intravenous Cyclophosphamide National Institute of Health protocol (93.9%) or steroid plus intravenous Cyclophosphamide EUROLUPUS protocol (6.1%), with mean total intravenous cyclophosphamide dose of 6.5g. Follow up at 1 year post therapy has demonstrated complete remission in 58.5% of patients and 34% patients achieved partial remission. In this cohort, 9.4% of patient experienced infection during induction therapy, 13.2% of patient reported to have secondary amenorrhoea. No mortality reported in this group of patients during their induction treatment.

Conclusion:

Lupus Nephritis in our population responded favorably to intravenous cyclophosphamide induction therapy. This therapy has advantages of adherence and is more economical despite higher risk of infective and fertility complication.



Submission ID: A-0026
Poster Viewing

Category: Doctor
Topic: Glomerulonephritis

LIGHT CHAIN AMYLOIDOSIS, DIAGNOSTIC DILEMMA IN ADULT NEPHROTIC SYNDROME, A CASE REPORT

Ku Ruziana KR¹, Ching CH¹, Mohamad FA¹, Ong YC¹, Alwin TYH¹, Kavitha A¹, Adib MI¹

Nephrology unit, Hospital Sultanah Bahiyah¹

Introduction:

Light chain amyloidosis (AL) or primary amyloidosis is caused by abnormal clonal expansion of plasma cells in bone marrow that leads to deposition of misfolding light chain in the kidney that leads to blockage of renal tubules and local inflammation of interstitial cells as well as mesangial expansion.

Case Report:

47 years old, gentleman, no known medical illness, presented with bilateral lower limb swelling, facial puffiness, abdominal distension and 9kg weight loss without other constitutional symptoms in September 2022. During initial presentation, his creatinine was 76 μ mol/L with hypoalbuminemia, albumin 9g/L, uPcr 15.78g/day and hypercholesterolemia, cholesterol 12.5mmol/L. He was induced with T. Prednisolone 1mg/kg/day. His 1st renal biopsy reported as mesangial expansion, highly suspicious for early stage renal amyloid deposition with C1q positive despite negative antinuclear antibody, normal c3/ c4 level, normal serum and urine electrophoresis, normal bone marrow aspiration and trephine. Unfortunately he defaulted follow up and represented again 8 months later with worsening shortness of breath, generalized edema and worsening creatinine (378 μ mol/L (eGFR 16.2mL/min/1.73m²)). 2nd kidney biopsy was performed and due to persistent C1q stain, his HPE was sent for mass spectrometry test which confirmed AL amyloidosis. He treated with 6 cycles of bortezomib, thalidomide and dexamethasone. Initially, he required temporary dialysis to ease his severe nephrosis. However despite completed treatment, he still dialysis dependent due to his nephrosis despite his creatinine static at 410 μ mol/L.

Conclusion:

AL is the most frequent subtype of renal amyloidosis worldwide. It affect the kidney in 50-80% of patients in different case series. It is imperative to include renal amyloidosis in the differential diagnosis of adult nephrotic syndrome, as such cases are not infrequently misdiagnosed as minimal change disease when associated with mild or inadequately evaluated amyloid deposition. Early detection is important because this disease carries high morbidity and mortality if left undiagnosed or untreated.



Submission ID: A-0027
Oral Presentation

Category: Paramedic
Topic: Haemodialysis

PREVALENCE OF CONSTIPATION AMONG HEMODIALYSIS PATIENTS: A SYSTEMATIC REVIEW AND META-ANALYSIS

Nga Nguyen Thi Thuy^{1,2}, Hoang Le Ngoc³, Yeu-Hui Chuang^{1,4,5}

¹School of Nursing, College of Nursing, Taipei Medical University, Taiwan ²Faculty of Nursing and Midwifery, Hanoi Medical University, Vietnam ³Graduate Institute of Biomedical Materials and Tissue Engineering, College of Biomedical Engineering, Taipei Medical University, Taiwan
⁴ Department of Nursing, Wan Fang Hospital, Taipei Medical University, Taipei, Taiwan
⁵ Research Center in Nursing Clinical Practice, Wan Fang Hospital, Taipei Medical University, Taipei, Taiwan

Introduction:

Constipation significantly impacts the quality of life and health outcomes of patients undergoing hemodialysis (HD). Despite its prevalence, there is a lack of systematic reviews and meta-analyses on the prevalence of constipation among patients receiving HD.

Purpose:

This study aimed to determine the pooled prevalence of constipation among patients receiving HD through systematic review and meta-analysis.

Methods:

Studies reporting the prevalence of constipation among patients undergoing HD published in PubMed, Embase, CINAHL, and Medline were included. Data extraction was conducted by two independent reviewers. A random-effects model was used for data analysis. Heterogeneity (Q and I² statistic), meta-regression, and publication bias were also performed. Methodological quality was independently assessed by two raters based on Hoy's guidelines.

Results:

Fourteen studies involving 4270 patients receiving HD (mean age 58.81 ± 5.14 years, mean duration of dialysis 5.58±2.02 years, male 62.6%) were included. The pooled prevalence of constipation among patients with HD was 41.2%. The Asia region reported a significantly higher proportion of constipation than other regions (p<0.001). No publication bias was identified (p=0.204, Egger's test).

Conclusions:

To the best of our knowledge, this meta-analysis provides the first comprehensive estimate of constipation prevalence among patients with HD, highlighting a significant burden, particularly in Asia. Healthcare professionals should prioritize constipation management in HD care and develop tailored interventions to improve patient outcomes.



Submission ID: A-0028
Poster Viewing

Category: Doctor
Topic: Haemodialysis

USE OF SUPER HIGH-FLUX HEMODIALYSIS, FOR TREATMENT OF HD PATIENTS WITH ACQUIRED PERFORATING DERMATOSIS

Cheng-Ching Peng

Hemodialysis Center Guanhua Hospital Changhua city, Taiwan

Background:

Acquired perforating dermatosis is a skin disorder that commonly occurs in patients with chronic renal failure and diabetes. About 4.5-11% of dialysis patients will suffer from this disease. Patients will initially present with itchy skin raised rashes. Typical lesions are red or dark papules with central horny protrusions, which often occur on the trunk, limbs and face. In severe cases, they can be accompanied by intense itching. Currently, the effect of traditional treatments is quite limited. Recently, due to the launch of Super high-flux membrane, we are trying to treat these patients with Super high-flux hemodialysis.

Methods:

Case 1 A 39-year-old male patient who has been receiving High-flux HD for 6 years because of diabetic nephropathy (IDDM). Penetrating skin lesions began to appear 2 years ago, and the last 3 months, The condition worsened rapidly and was accompanied by severe skin itching. Case 2 A 67-year-old female patient who has been receiving High-flux HD for 7 years due to diabetic nephropathy (IDDM). She began to develop penetrating skin lesions a few months ago and was accompanied by skin itching.

We recommend both patients switch to Super high-flux HD to treat this lesion. The dialyzer we used is Elisio 21HX Nipro. The patient's dialysis prescription and settings are the same as the previous High-flux hemodialysis method.

Results:

These two patients were successfully converted from High-flux hemodialysis to Super high-flux hemodialysis. The symptoms of skin itching improved after 2 weeks, and the perforating dermatosis improved significantly after 1 to 2 months.

Conclusion:

This is the first attempt to use dialysis therapy to treat acquired perforating dermatosis. Super high-flux hemodialysis can effectively treat acquired perforating dermatosis and skin pruritus in dialysis patients. This manner is simple and easy to operate, which will help its promotion and benefit patients with such diseases.

Submission ID: A-0029
Poster Viewing

Category: Doctor
Topic: Peritoneal Dialysis

TUBERCULOUS AND NON-TUBERCULOUS MYCOBACTERIAL PERITONITIS IN PERITONEAL DIALYSIS PATIENTS: A 12-YEAR TERTIARY CENTER EXPERIENCE

Zachary L.C.W¹, Jason K², Chelsia C.B.T², Cheng M.C², Liew Y.F².
^{1,2}Department of Nephrology, Hospital Pulau Pinang.

Introduction:

PD Peritonitis caused by Mycobacterium Tuberculosis (TB) and Non-tuberculous Mycobacteria (NTM) often poses diagnostic and management challenges. Our study aims to describe the clinical characteristics, diagnostic features, treatment and outcomes of mycobacterial peritonitis in our centre.

Methodology:

Retrospective review of the medical records of all adult patients on peritoneal dialysis in Penang Hospital who developed peritonitis between 2012 and 2023. All PD dialysate culture confirmed TB and NTM peritonitis were identified. Patients' clinical characteristics, laboratory results, treatment and outcomes were obtained from clinical notes.

Results:

Eight patients were diagnosed with TB peritonitis and three patients with NTM peritonitis. Mean age at diagnosis was 51.5 ± 13.6 years. Median duration of PD prior to diagnosis of mycobacterial peritonitis was 16 months (IQR 5, 36). All patients had cloudy dialysate while 54% had abdominal pain and 36% had fever or diarrhea. PD dialysate shows elevated white blood cell count with lymphocyte predominance in four patients (45.5%). Among NTM cases, Mycobacterium Abscessus was isolated in two patients and Mycobacterium Wolinskyi in one patient. There were three TB and one NTM peritonitis related mortalities. Two patients succumbed prior to availability of mycobacterial culture results and definitive antibiotics. Remaining TB peritonitis patients received quadruple anti tuberculous regime (EHRZ). One patient with Mycobacterium Abscessus was treated with Imipenem, Azithromycin and Amikacin combination therapy while the patient with Mycobacterium Wolinskyi received HRZ therapy. PD catheter was removed in all except one TB peritonitis patient who succumbed before diagnosis confirmation.

Conclusion:

Mycobacterial peritonitis is often associated with poor outcomes due to its insidious clinical presentation and limitations of current available diagnostic tests. High index of suspicion for mycobacterial peritonitis is warranted in cases of refractory culture negative PD peritonitis.

Submission ID: A-0030
Oral Presentation

Category: Doctor
Topic: Others : Risk Score Calculation

CLINICAL UTILITY OF KIDNEY FAILURE RISK EQUATIONS (KFRE) IN MALAYSIA CONTEXT: PRACTICAL CONSIDERATIONS AND APPLICATIONS

Hooi Chin BEH¹, Ying Guat OOI², Sarkaaj SINGH², Quan Hziung LIM², Nur Raziana ROZI³,
Christine Shamala SELVARAJ¹, Adina ABDULLAH¹, Wan Ahmad Hafiz WAN MD ADNAN², Lee
Ling LIM², Pavai STHANESHWAR⁴, Soo Kun LIM²

1 Department of Primary Care Medicine, Universiti Malaya, Kuala Lumpur, Malaysia

2 Department of Medicine, Faculty of Medicine, Universiti Malaya, Kuala Lumpur, Malaysia

3 Department of Medicine, Kulliyah of Medicine, International Islamic University Malaysia,
Kuantan, Pahang, Malaysia

4 Department of Pathology, Faculty of Medicine, Universiti Malaya, Kuala Lumpur, Malaysia

Introduction:

CKD is a multifaceted medical condition with significant heterogeneity in prognosis. The KFRE is a validated prediction model for End Stage Kidney Disease (ESKD). KFRE risk score of 40% indicated similar median progression time to ESKD equivalent to eGFR 15ml/min/1.73m². Our study investigates if KFREs scores differs significantly with different formulations: [4-variable versus 8-variable], [eGFR calculation using CKD-EPI 2009 versus CKD-Epi 2021] and [conversion of uPCR to uACR].

Methodology:

Adults with CKD [eGFR 15 - 59 ml/min/1.73m²] attended UMMC clinics in 2022 were recruited retrospectively. Data to calculate KFREs [age, gender, creatinine, uACR/uPCR, calcium, phosphate, albumin, bicarbonate] were collected. Two-sample t-test and the Wilcoxon Rank Sum test were done using R version 4.1.2.

Results:

10391 adults with CKD were recruited with mean age of 69.4 ± 11.5 years, 53.4% male, median eGFR 42.7 (28-54) ml/min/1.73m² and median uACR 8.7 (2-52) mg/mmol. There were no significant differences in KFRE scores when calculating eGFR using either CKD-EPI 2009 or CKD-Epi 2021 equation. When comparing the 4-variable and 8-variable models, the risk differences between the 2-year and 5-year were 0.2% and 1.4% respectively, it was statistically significant but not clinically significant. When the analysis was repeated by converting uPCR to uACR, the risk difference markedly increased to 6.5% for KFRE 4- variable 5-year risk. Among adults with CKD stage 3, when 5-year KRFE scores are risk stratified, we observed higher proportion in medium risk (16.2% vs 18.6%) and in high risk (6.9% vs 8.1%) when comparing 4-variable vs 8-variable respectively.

Conclusions:

In the optimal scenario using urine ACR, KFRE 4-variable model performs equally well as the 8-variable model. However, when including those with uPCR converted to uACR, the differences in KFRE become more pronounced. Therefore, we suggest using the KFRE 4-variable model with urine ACR for CKD risk assessment in local settings.



Submission ID: A-0031
Poster Viewing

Category: Doctor
Topic: Others : Dialysis: PROM

HEMODIALYSIS(HD) OR PERITONEAL DIALYSIS(PD): WHICH MODALITY PROVIDES BETTER KIDNEY RELATED QUALITY OF LIFE(KDQOL)? A SINGLE CENTER PROSPECTIVE CROSS SECTIONAL STUDY FROM HOSPITAL TENGGU AMPUAN RAHIMAH, KLANG, SELANGOR

Sun Quan EE¹, Pearly Sim Aik SIM¹, Tharshannia BALAIKERISNAN¹, Fairuz MOHD JONIKHIR¹, Irene WONG¹, Norleen ZULKARNAIN SIM¹, Khairul Anuar ABD MANAF¹, Shahnaz Shah FIRDAUS KHAN¹

¹Hospital Tengku Ampuan Rahimah, Klang, Malaysia

Introduction:

End-stage kidney disease (ESKD) substantially affects patients' quality of life. Patient-reported outcome measures(PROMs) have the ability to provide valuable insights into patients' symptoms that are unable to be ascertained by laboratory markers. The aim of this study is to assess which modality provides a better quality of life and factors contributing to it.

Methods:

A prospective cross-sectional study was carried out using KDQoL-SF v1.3 questionnaire in English and Malay format. This questionnaire scores each individual questions, and overall scores for SF-12 Physical Composite and SF-12 Mental Composite were calculated using spreadsheet developed by RAND Corporation. Patients older than 18-year-old, who consented to join the survey, and were attending either long-term HD/PD in HTAR were included. Sample size calculated with confidence level of 95% and margin of error at 10% would be 97 patients. Convenience sampling was used. Data was analysed using SPSS26.0 and normality of the data was tested using Kolmogorov-Smirnov test. Mann-Witney test and linear regression test were then used accordingly.

Results:

A total of 100 patients (50 HD, 50 PD) were analysed. From the study population, 57% were male and mean age was 51.5 year (HD 50.8, PD 52.3). Mean dialysis vintage for HD was 9.8years while PD was 3.4years. There were no significant difference in modality of dialysis with both SF-12 Physical Composite($p=0.058$) and SF-12 Mental Composite($p=0.689$). There were also no significant differences in dialysis vintage($p=0.178$, $p=0.848$) and gender($p=0.301$, $p=0.285$) with both scores. However, correlation analyses revealed that physical score was negatively associated with patients' age, suggesting that as age increases, physical score tends to decrease in patients undergoing either HD/PD($p=0.002$).

Conclusion:

There were no significant differences in KDQoL among dialysis modality, gender and vintage. Younger patients had higher physical scores but showed no differences in mental scores.



Submission ID: A-0032
Poster Presentation

Category: Doctor
Topic: Others : AKI/CRITICAL CARE
NEPHROLOGY

USE OF RENAL ANGINA INDEX TO PREDICT ACUTE KIDNEY INJURY OUTCOMES: PROSPECTIVE STUDY FROM A DEVELOPING COUNTRY

Mohamed Anas¹, Indu Ramachandra Rao¹, Shankar Prasad N¹,

¹Department of Nephrology, Kasturba Medical College, Manipal, India

Introduction:

Acute Kidney Injury (AKI) in critically ill patients is common and are associated with unpleasant consequences. Risk stratification is necessary for preventing and reducing severe AKI. Renal Angina Index(RAI) is assumed to serve as a potential biomarker for persistent AKI. We looked at patient survival, need for Renal Replacement Therapy (RRT), and Major Adverse Kidney Events (MAKE) [a clinically meaningful patient-centred outcome for AKI] with RAI

Methods:

Prospective cohort study conducted in ICUs of a tertiary care referral center in India (June 2023 to March 2024) after clearance from the Institutional Ethics Committee. Adult patients with ICU stay >48 hours were included, excluding end-stage renal disease (ESRD) and renal transplant recipients. Baseline clinical and demographical data were obtained on the day of admission to the ICU. RAI is calculated from creatinine change within 24 hours & patient condition scores. MAKE30 is defined as a composite of death, provision of RRT, or sustained loss of kidney function (at discharge or by day 30, whichever comes first)

Results:

From 348 included patients, 242(69%) had AKI with most being stage 3-132 (54.5%), followed by stage 1-75 (30.9%) and then stage 2-35 (14.4%). RAI was distributed in a skewed manner with mean, median, and mode of 12.8, 5, and 5 respectively. AKI was associated with mortality in 88 (35%), RRT requirement in 110 (43.8%), 25% eGFR loss in 75 (29.8%), and overall MAKE30 of 174 (69.4%). ROC showed an AUC of 0.765 between RAI and Age to MAKE30(Figure 1). Kaplan-Meier curve and Log-Rank Test were done for RAI <10 and >10 to see patient survival and need for RRT at day 30, showing a significant p-value of 0.014 (for mortality) (Figure 2) & <0.001 (Need for RRT) (Figure 3).

Conclusion:

RAI at admission can predict severe AKI and related complications. Need further large multi-centric studies for confirmation.

Submission ID: A-0033
Poster Viewing

Category: Doctor
Topic: Glomerulonephritis

ATYPICAL ANTI-GLOMERULAR BASEMENT MEMBRANE DISEASE- NOT ALWAYS INDOLENT, A CASE SERIES FROM SOUTHERN INDIA

Mohamed Anas¹, Shankar Prasad Nagaraju¹, Ravindra Prabhu Attur¹, Dharshan Rangaswamy¹,
Indu Ramachandra Rao¹, Srinivas Vinayak Shenoy¹, Mohan V Bhojaraja¹

¹Department of Nephrology, Kasturba Medical College, Manipal Academy of Higher Education,
Manipal-576104, Karnataka, India

Background & Aim:

Atypical anti-glomerular basement membrane (anti-GBM) disease is distinguished by linear deposition of immunoglobulin G (IgG) along the GBM, notably in the absence of circulating IgG anti-GBM antibodies. About 10% of anti-GBM disease cases exhibit atypical presentations, characterized by a distinctive indolent clinical course, minimal pulmonary involvement, and infrequently, a crescentic phenotype with a better prognosis.

Methods:

We report a case series of atypical anti-GBM diseases, each manifesting as rapidly progressive glomerulonephritis (RPGN), their clinical, laboratory, histopathological findings, the treatment strategies employed, and their outcomes.

Results:

Three atypical anti-GBM cases were identified, each displaying an unusual presentation. All had crescents and endocapillary hypercellularity on histology, along with negative Anti GBM serology by ELISA. Patient-1 -56-year-old male with nil premorbid, presented with epigastric discomfort, fatigability, and RPRF, progressed to ESKD and later death despite treatment with steroids, PLEX, and Cyclophosphamide. Patient-2 -57-year-old male with a history of Hypertension and Ischemic heart disease, presented with respiratory distress and RPRF, progressed to ESKD and death at 2 months of presentation regardless of treatment with steroids and Cyclophosphamide. Patient-3-65-year-old male with Diabetes and Hypertension, presented with hemoptysis, weight loss, and RPRF, on testing diagnosed with non-small cell carcinoma of the lung, succumbed at 2 weeks despite pulse steroids

Conclusion:

In contrast to the typical description, our patients experienced a rapid deterioration of the disease, ultimately succumbing to complications within three months. Notably, our cases had a pulmonary hemorrhage, severe renal failure, and a stormy course. One case had a rare association with non-small cell lung carcinoma. The nature of these atypical cases remains uncertain, prompting questions about whether they represent a homogeneous subtype of anti-GBM disease or a group of heterogeneous conditions. Comprehensive clinicopathological characterization, vigilant monitoring, and aggressive management are crucial even in Atypical Anti-GBM disease.



Submission ID: A-0035
Poster Viewing

Category: Doctor
Topic: Mineral Bone Disease

ASSOCIATION OF ANEMIA WITH PARATHYROID HORMONE LEVELS AND OTHER FACTORS IN PATIENTS WITH END-STAGE RENAL DISEASE UNDERGOING HEMODIALYSIS: A CROSS-SECTIONAL, REAL-WORLD DATA STUDY IN PAKISTAN

Humera Bukhari,¹Aneeqa Ahmad,²Amna Noorin,³Aimal Khan,⁴Mehwish Mushtaq,⁵Aamir Naeem,⁶Muhammad Rashid Iqbal,⁷Faiza Naureen,⁸Yasar Shah,⁸Ahad Qayyum,⁹Syed Munib,¹⁰and Amer Azhar¹¹ *et al.*

Khyber Teaching Hospital Peshawar

Introduction:

Anemia is one of the most common complications associated with maintenance hemodialysis (HD) patients. There are several reasons for developing anemia in end-stage renal disease (ESRD) patients. The reduction in erythropoietin (EPO) production is one of the main reasons for anemia in ESRD patients.

Methods:

A retrospective, multicentric, and real-world data analytical study was conducted from January 2021 to May 2022 at the dialysis centers of Lahore, Faisalabad, and Peshawar in Pakistan. The data were collected from patient files of institutes that include District Headquarter (DHQ) Hospital, Faisalabad; Bahria Town International Hospital (BTIH), Lahore; Khyber Teaching Hospital (KTH), Peshawar; and the Institute of Kidney Diseases (IKD), Peshawar. DHQ, Faisalabad, KTH, Peshawar, and IKD, Peshawar, are public sector tertiary care teaching hospitals, while BTIH, Lahore, is a private sector tertiary care hospital.

Results:

According to our results, the most common comorbidities observed among 230 HD patients were hypertension ($n = 185$, 80.4%) and diabetes mellitus ($n = 23$, 10%). Serum iPTH levels were reported for only 179 patients; however, out of those 179 patients, $n = 126$ patients (70%) were found to have hyperparathyroidism in our study MHD patients.

Conclusion:

In our results, we found a higher prevalence of anemia among ESRD patients with maintenance HD. Based on our final multivariate model, we conclude that there was no statistically significant association found between anemia and hyperparathyroidism. Moreover, the study results depict that every additional month in the duration of hemodialysis, having age (<45 years), and positive anti-HCV antibody status, these variables were more likely to have anemia in our study MHD patients.



Submission ID: A-0036
Poster Viewing

Category: Doctor
Topic: Transplant

DISSEMINATED CUTANEOUS OSTEOARTICULAR SPOROTRICHOSIS IN A POST TRANSPLANT PATIENT. A CASE REPORT.

Tharshannia BALAIKERISNAN¹, Shahnaz SHAH¹, Norleen SIM¹,
Irene WONG¹, Khairul MANAF¹

¹ Department of Nephrology, Hospital Tengku Ampuan Rahimah, Selangor, Malaysia

Introduction:

Sporotrichosis is an uncommon fungal infection caused by the dimorphic fungus *Sporothrix schenckii*. Disseminated sporotrichosis, particularly in immunocompromised individuals, is rare and challenging to diagnose. We present a case of a 39-year-old Chinese gentleman with a background history of cadaveric renal transplant in 2004, bronchiectasis, diabetes mellitus, and chronic hepatitis C. He presented with ulceration with multiple joint swellings, fever, weight loss, and dysphagia. Initially managed as inflammatory arthritis and subsequently developed ulceration over his joints. A skin biopsy revealed disseminated sporotrichosis. The patient responded well to antifungal treatment, with resolution of symptoms and improvement in renal function.

Case Presentation:

A 39-year-old man, with a history of renal transplant, presented with painful joint swellings, fever, weight loss, and dysphagia. Initial evaluation suggested inflammatory arthritis, but further investigations, including skin biopsy, revealed disseminated sporotrichosis with reactive arthritis.

Discussion:

This case highlights the importance of considering fungal infections, especially in immunocompromised patients presenting with atypical symptoms. Early diagnosis and prompt initiation of antifungal therapy are crucial for a favorable outcome.

Conclusion:

Disseminated sporotrichosis should be considered in the differential diagnosis of immunocompromised patients presenting with joint symptoms, particularly in endemic regions. Timely diagnosis and appropriate management are essential for optimal patient outcomes. Further studies are warranted to better understand the epidemiology and management of this rare condition.

Submission ID: A-0037
Poster Viewing

Category: Doctor
Topic: Infections

STUDY PREVALENCE OF INFECTION HOSPITALIZATIONS AND ITS ASSOCIATED FACTORS AMONG SYSTEMIC LUPUS ERYTHEMATOSUS PATIENTS IN A SINGLE TERTIARY CENTRE

Wan Azzat WAN ZAIDI¹, Mohd Shahrir MOHAMED SAID², Najma KORI³, Lydia KAMARUZAMAN⁴, Azimatun AIZUDDIN⁵

¹Internal Medicine, Faculty of Medicine UKM, Kuala Lumpur, Malaysia ²Rheumatology, Faculty of Medicine UKM, Kuala Lumpur, Malaysia ³Infectious Disease, Faculty of Medicine UKM, Kuala Lumpur, Malaysia ⁴Nephrology, Faculty of Medicine UKM, Kuala Lumpur, Malaysia ⁵Statistician, Faculty of Medicine UKM, Kuala Lumpur, Malaysia

Background:

SLE is a complex multisystem autoimmune disease. SLE patients were at risk of infection because of immunocompromised state of the disease and the underlying treatment given. Infection can be life threatening and is deemed the common causes of mortality among them.

Objectives:

To determine prevalence of infection hospitalization among SLE patients and its associated factors with lupus nephritis (LN), immunosuppressant therapy, co-morbidities, SLEDAI-2K, SLICC/ACR Damage Index and the length of stay (LOS).

Methods:

It was retrospective study which include all hospitalizations with SLE diagnosis from January 2016 to December 2020 at UKMMC, Kuala Lumpur, Malaysia. SLE patients who overlapped with other rheumatologic diseases were excluded. Descriptive analyses were used to determine the prevalence of infection hospitalizations and the associated sociodemographic and clinical background. Multivariate analyses done to determine the independent predictors of infection hospitalizations.

Results:

There was 287 SLE patients with 531 hospital admissions for analysis. The prevalence of infection hospitalization was 29.9% (n=159). Those with LN had higher rates of infection hospitalization compared to non-nephritis (29.66% vs 20.7%, p = 0.027). Higher rates of infection hospitalizations among those with hypertension (37.1% vs 26.9%, p=0.018), non-obese (6.18% vs 0.63%, p=0.003), steroids (86.79%vs 78.76%, p = 0.03) and cyclophosphamide (15.72% vs 7.26%, p= 0.003). Higher LOS among infection hospitalization compared to non-infection related (6 days vs 4 days, p < 0.001) with higher rate of death (3.14% vs 0.81%, p = 0.056). Higher mean SLEDAI-2K among infection hospitalizations compared to non-infection related (2.11 ± 3.49 vs 0.74 ± 1.87, p<0.001). Independent factors associated with infection hospitalizations were steroid therapy (OR:2.094, p=0.013), cyclophosphamide therapy (OR:1.880, p=0.048), and SLEDAI-2K (OR: 1.834, p = 0.018).

Conclusion:

These findings were valuable for clinicians to identify those relatively higher risk infections so better interventions can be provided for a better prognosis to SLE patients.

Submission ID: A-0038
Poster Viewing

Category: Doctor
Topic: Others : Chronic Kidney Disease

EXPLORING THE ICEBERG OF MODIFIABLE RISK FACTORS FOR CKD DEVELOPMENT AMONG HEALTHY POPULATION: A COMMUNITY-BASED STUDY IN JOHOR BAHRU

Karin LAM¹, Mei Sian FU¹, Xian Pei CHEONG¹, Wen Jiun LIU¹

¹Department of Internal Medicine and Nephrology, Hospital Sultanah Aminah, Johor Bahru,
Malaysia

Introduction:

Chronic kidney disease (CKD) is a public health challenge, affecting approximately one in ten people globally attributable to the high prevalence of diabetes mellitus and hypertension. By 2040, it is expected to become a major cause of death by observing the rising mortality rate of 41.5% from 1990 to 2017. This study aims to identify the prevalence of undiagnosed modifiable risks factors for CKD development among healthy population in the urban community.

Methods:

A health screening campaign including the measurement of body mass index (BMI), capillary blood sugar, lipid profile, blood pressure and urine dipstick was conducted and opened to the public during World Kidney Day celebration, 2/3/2024 at Johor Bahru. The collected data was analyzed with SPSS software.

Results:

A total of 73 out of 97 subjects who reported no previous medical illnesses were identified and included in this analysis. Most of the subjects were females (64.4%), Malays (69.9%) with the mean age of 35.95±9.326. Overweight and obesity were reported in 37% (n=27) and 15.1% (n=11) respectively. Nearly two-third of the subjects (n=41) had abnormal lipid profile (TG ≥ 1.7mmol/L or LDL-C ≥ 2.6mmol/L) and one-fifth (n=15) with recorded elevated blood pressure (SBP≥ 130mmHg), necessitating further evaluation. 11% (n=8) had prediabetes (FBS ≥ 5.6 mmol/L and <7mmol/L or RBS ≥ 7.8mmol/L and <11.1mmol/L) and 2.7% (n=2) had undiagnosed diabetes (FBS ≥ 7mmol/L or RBS ≥ 11.1mmol/L). Asymptomatic proteinuria was identified in 2 out of 49 subjects (4.1%) who performed urine dipstick.

Conclusion:

This study showed that a vast majority of our young population are unaware of their health status, making it prudent for the public healthcare providers to be more proactive in educating, screening and early identification of the at-risk individuals, as well as disease control in order to prevent or delay the development of CKD.



Submission ID: A-0040
Poster Viewing

Category: Doctor
Topic: Transplant

C1Q NEPHROPATHY: AN UNDER-RECOGNIZED PATHOLOGICAL ENTITY

Min THAM¹, Fariz NORDIN²

¹Department of Nephrology, Hospital Sultanah Aminah Johor Bahru, Malaysia

²Department of Nephrology, Hospital Sultan Ismail Johor Bahru, Malaysia

Background:

C1q nephropathy, a rare glomerular disease, is primarily diagnosed through histological findings, excluding systemic lupus erythematosus (SLE) and Type I Membranoproliferative Glomerulonephritis.

Methodology:

A retrospective observational case study was conducted.

Results:

We present a case of a 21-year-old transplant recipient, 4 years post renal transplant, with new-onset subnephrotic hemoproteinuria. His history includes End Stage Kidney Disease since age 9, leading to a cadaveric renal transplant in 2018. Serum creatinine remained stable. However, in early 2022 24-hour urinary protein excretion was 2.4 grams. Ultrasound ruled out renal artery stenosis or vein thrombosis. Immunomodulator levels were within range, and donor-specific antibodies were negative. Renal allograft biopsy revealed focal sclerosing with mesangioproliferative pattern, dominated by C1q deposition. Electron dense deposits in the mesangium, swollen podocytes, and foot process effacement were observed, indicating de novo or recurrent immune complex-mediated glomerulonephritis. Serial urinalysis showed a gradual resolution of proteinuria to 0.42 grams per day without medication changes. Autoimmune panels were negative.

Conclusions:

This case reported a spontaneous resolution of proteinuria without adjustment of medications and change in clinical management. It underscores the importance to explore and determine the significance of C1q deposition in renal allografts. Further studies are imperative to provide guidance for management

Submission ID: A-0042
Poster Viewing

Category: Doctor
Topic: Haemodialysis

RELATIONSHIP BETWEEN FLUID ADHERENCE AND ADEQUACY IN MAINTENANCE HEMODIALYSIS PATIENTS AT ABDUL WAHAB SJAHRANIE HOSPITAL SAMARINDA

Astried Indrasari¹, Yunda Arilya Nurhanisah², Ronny Isnuwardana³

¹ Division of Nephrology and Hypertension, Department of Internal Medicine, Faculty of Medicine, Universitas Mulawarman/Abdul Wahab Sjahrani Hospital, Samarinda, Indonesia

² Medical Education Study Program, Faculty of Medicine, Universitas Mulawarman/Abdul Wahab Sjahrani Hospital, Samarinda, Indonesia ³ Public Health and Community Medicine Laboratory, Faculty of Medicine, Universitas Mulawarman/Abdul Wahab Sjahrani Hospital, Samarinda, Indonesia

Introduction:

Hemodialysis (HD) has been the most widely used treatment for renal replacement therapy (RRT) in patients with end-stage renal disease (ESRD). It has been used to maintain patients' quality of life and to prolong their lives. The adequacy of HD depends on the patients' commitment to regulating their daily life patterns, included those related to fluid adherence. Fluid is a component that must be regulated by ESRD patients who are undergoing HD. Excess fluid is strongly associated with the main causes of increased morbidity and mortality in HD patients.

Methods:

The study used a cross-sectional design with a consecutive sampling technique with a total research sample of 60 respondents. The study was conducted in the Dialysis Unit December 2023. The data were collected by use of the characteristics of the respondent questionnaire and fluid adherence questionnaire. Laboratory marker and dialysis adequacy (Kt/V) information were obtained from medical records.

Results:

Based on the results of research conducted, it was found that the characteristics of patients undergoing maintenance hemodialysis were mostly women (55%) in the age group 46-65 years (66.7%). For education level, graduated from high school (33.3%), with duration of hemodialysis under 5 years (68.3%). From this research it was found that most respondents (66.7%) did not adhere to fluid restriction. It was also found that 85% of the respondents had hemodialysis inadequacy ($kt/v \leq 1.8$). There was a correlation between fluid restriction adherence and hemodialysis adequacy ($p = 0.002$, $OR = 10.231$).

Conclusion:

Low adherence with fluid restrictions is related to hemodialysis inadequacy. Based on research results, it is important to increase fluid restriction, because fluids can determine the compliance of hemodialysis patients, especially regarding problems with the patient's body fluids.

Keywords:

Fluid Adherence, Adequacy, Hemodialysis.



Submission ID: A-0043
Oral Presentation

Category: Doctor
Topic: Paediatric Nephrology

VOLUME ASSESSMENT IN PAEDIATRIC HEMODIALYSIS USING LUNG ULTRA SONOGRAPHY IN RESOURCE LIMITED COUNTRIES

Ch Muhammad Umer Razaq¹, Iftikhar Ijaz², Farnaz Abbas³

1-2 Children Kidney Center (IPNA Sister Renal Center) Department of Pediatrics KEMU/ Mayo Hospital, Lahore, 3Department of Pediatric Radiology Mayo Hospital Lahore

Introduction:

It is a significant challenge clinically to optimize the weight of children and infants. We hypothesize that in children receiving dialysis fluid overload can be quantified using lung ultrasound. To determine the frequency of diagnosing pulmonary edema using lung ultrasound and clinical examination as well as to determine the association of percentage decrease in weight with the number of B-lines in children with renal failure undergoing hemodialysis.

Methods:

This cross-sectional study was conducted in the Division of Pediatric Nephrology, Paediatric Unit II, Mayo Hospital Lahore from June 2020 to June 2021 after approval of the hospital committee. Patients aged 6 to 16 years undergoing regular hemodialysis after chronic kidney disease were enrolled. Lung ultrasound examinations were performed before the start of dialysis and after the completion of dialysis. B lines were measured on the ultrasound along with comparing the proportional increase in weight from the target weight.

Results:

Eighty-one lung ultrasound assessments were performed in total. The mean age was 10.4 ± 3.3 years. There were 56 (69.1%) male and 25 (30.8%) female patients. The mean percentage decrease in weight was $5.5 \pm 2.4\%$ before dialysis and $0.96 \pm 0.6\%$ after dialysis, p-value < 0.001 . Pre-dialysis B lines were 10.9 ± 6.2 which significantly reduced after dialysis, post-dialysis B lines were 4.3 ± 2.7 , p-value was significant i.e. < 0.001 . In 25 (30.8%) patients clinical examination revealed pulmonary edema while 51 (62.9%) patients had pulmonary congestion detected by lung ultrasound before dialysis.

Conclusion:

In children receiving dialysis lung ultrasound is a sensitive and practical method of evaluating subclinical fluid overload. A decrease in the number of B-lines after dialysis represents a decrease in weight after dialysis. More number of patients were diagnosed using lung ultrasound as compared to clinical examination

Submission ID: A-0044
Poster Viewing

Category: Doctor
Topic: Glomerulonephritis

THE ROLE OF NEUTROPHIL-LYMPHOCYTE AND PLATELET-LYMPHOCYTE RATIOS AS PREDICTORS OF RELAPSE IN LUPUS NEPHRITIS

Ahmad Faiq Sa'dan MOHD ZAINI¹, Kuan Yee LIM^{1,2}, Rozita MOHD^{1,2}

¹Department of Medicine, Faculty of Medicine, Universiti Kebangsaan Malaysia, Malaysia

²Department of Medicine, Hospital Canselor Tuanku Muhriz, Malaysia

Introduction:

Lupus nephritis is a major organ involvement in systemic lupus erythematosus. Periodical renal function test and urinalysis monitoring is the current standard practise in detecting early flare. Recently, there is increasing interest in using neutrophil-lymphocyte and platelet-lymphocyte ratios in detecting active lupus nephritis.

Methods:

A retrospective observational study involving patients with lupus nephritis under Nephrology clinic, Hospital Canselor Tuanku Muhriz follow up. Patients with flare of lupus nephritis from 1st January 2014 to 31st December 2023 were recruited by convenient sampling. Their laboratory investigations during flare phase were compared with those during remissive phase 3-6 months prior to the flare.

Results:

A total of 76 patients were enrolled with a mean age of 42.0±11.6 years with predominantly female (85.5%) and Chinese (50.0%) ethnicity. Both active and remissive lupus nephritis phases had medians (interquartile range, IQR) urine protein-creatinine index of 0.17 (0.13) and 0.04 (0.04) g/mmol whilst their medians (IQR) serum albumin were 33 (7) and 36 (4) g/L respectively. There were no significant differences of serum haemoglobin, white blood cell, platelet, and serum creatinine levels in both phases. The neutrophil-lymphocyte and platelet-lymphocyte ratios as well as their temporal trends showed significant differences with median (IQR) of neutrophil-lymphocyte ratio 2.60 (3.15) vs 2.14 (1.20), platelet-lymphocyte ratio 171.13 (148.70) vs 153.90 (74.92), delta neutrophil-lymphocyte ratio 0.62 (1.86) vs -0.14 (1.28), and delta platelet-lymphocyte ratio 21.48 (101.02) vs 0.46 (58.78) with respective *p*-value of <0.001, 0.001, <0.001, and <0.001 accordingly.

Conclusion:

Both of the neutrophil-lymphocyte and platelet-lymphocyte ratios were significantly higher in active lupus nephritis compared to remissive state. Thus, the increasing trend of these parameters may predict early flare of lupus nephritis.

Submission ID: A-0045
Poster Viewing

Category: Paramedic
Topic: Peritoneal Dialysis

DOSE CONVERSION RATIO BETWEEN EPOETIN BETA (RECORDON®) AND METHOXY POLYETHYLENE GLYCOL-EPOETIN BETA (MIRCERA®) AMONG MALAYSIAN PERITONEAL DIALYSIS PATIENTS WITH ANEMIA

Siew Yan LAU¹, Boon Cheak BEE², Esther Zhao Zhi TAN², Hui Koon SEAH¹, Hui Xin WEN¹, Jacqueline Sheng Ing TAN¹, Ji Sen TONG¹, Li Qian YAP¹, Mogana MATHAYENA¹, Sanggetha RAJA SAKER¹, Yean Hoon TAN¹, Chin Yeong LOW¹, Hin-Seng WONG³

¹Department of Pharmacy, Selayang Hospital, Selangor, Malaysia ²Department of Nephrology, Selayang Hospital, Selangor, Malaysia ³Sunway Medical Center, Selangor, Malaysia

Introduction:

Significant hemoglobin (Hb) variability has been observed among dialysis patients who were switched from epoetin beta (Recormon®) to methoxy polyethylene glycol-epoetin beta (Mircera®) by referring to manufacturer-recommended dose conversion. This study aims to determine the dose conversion ratio (DCR) between Recormon® and Mircera® in adult peritoneal dialysis (PD) patients.

Methods:

A prospective, single-arm study was conducted in Hospital Selayang between March 2022 and April 2024. Fifty-seven patients who received Recormon® with stable hemoglobin (Hb) levels were switched to Mircera® for 6 months, with dose adjusted to maintain Hb levels between 10–12 g/dL. Starting dose of Mircera® was 120 µg/month and 200 µg/month when previous weekly Recormon® was <8000 IU and 8000–16000 IU, respectively. The DCR was computed by dividing the baseline Recormon® dose (IU/week) by the Mircera® dose (µg/month) at month-6.

Results:

The baseline Recormon® dose was 4000 (IQR 4000) IU/week. Forty-six (80.7%) and 11 (19.3%) patients started Mircera® at 120 and 200 µg/month, respectively. The Hb at month-6 was 10.7±1.5 g/dL, which was significantly lower than the baseline Hb of 11.3±0.5 g/dL (95% confidence interval of Hb decline 0.12 to 0.89, P=0.01). Intra-patient Hb varied by 2.5±1.1 g/dL over the 6-month period. Twenty-seven (47.4%) and 32 (56.1%) patients had at least one Hb above 12 g/dL and below 10 g/dL, respectively upon switching to Mircera®. Forty-six (80.7%) patients required dose adjustment. At month-6, 8 (14.0%) patients had Hb above 12 g/dL and Mircera® was withheld. The median Mircera® dose at month-6 was 150 (IQR 100) µg/month. The median DCR of Recormon® to Mircera® was 33.3 (IQR 30.0).

Conclusions:

In PD patients, the DCR of Recormon® to Mircera® was 33.3. There was substantial Hb variability upon switching from Recormon® to Mircera® by referring to manufacturer-recommended dose conversion.

Submission ID: A-0046
Poster Viewing

Category: Doctor
Topic: Mineral Bone Disease

TERIPARATIDE TREATMENT FOR HUNGRY BONE SYNDROME POST PARATHYROIDECTOMY: A CASE SERIES

Xue Meng LIM, Esther Zhao Zhi TAN

Department of Nephrology, Selayang Hospital, Selangor, Malaysia

Introduction:

Resistant tertiary hyperparathyroidism, common among end-stage kidney disease (ESKD) patients on maintenance dialysis is treated with parathyroidectomy. Hungry bone syndrome post parathyroidectomy results in severe hypocalcemia. Teriparatide, a recombinant parathyroid hormone (rhPTH [1–34]) analogue, is a potent osteo-anabolic agent. Intermittent subcutaneous teriparatide therapy increases serum calcium levels and may be effective in preventing severe and resistant hypocalcemia post parathyroidectomy.

Method:

ESKD patients on maintenance dialysis who had undergone parathyroidectomy and required teriparatide treatment were identified and described.

Results:

Three ESKD patients aged 22-37 years on maintenance dialysis with tertiary hyperparathyroidism underwent parathyroidectomy for refractory tertiary hyperparathyroidism. At baseline, serum calcium levels (mean 2.50 mmol/L), serum phosphate (mean 2.35 mmol/L), serum intact parathyroid hormone (range 105-245 pmol/L) and serum alkaline phosphatase (mean 612 U/L) were documented. All patients developed severe hypocalcemia post operation and were prescribed intravenous calcium gluconate 10% infusion at the rate of 10-20 ml/hour, total 2.12-4.24 mmol/day, for duration of 6-13 days. Subcutaneous teriparatide 20-80 µg daily was initiated on 5-9 days post operation, with total duration of 5-7 days. Intravenous calcium was tapered and stopped at 4-8 days after initiation of subcutaneous teriparatide. Throughout hospitalization (range 8-15 days), stable serum calcium in normal range was achieved with α-calcidol 6-8 µg thrice daily and oral elemental calcium 936 - 7960mg daily. None of these patients required repeated dose of teriparatide after completion of treatment.

Conclusion:

Short duration of teriparatide treatment is effective and safe to be used in ESKD patients who developed hungry bone syndrome post parathyroidectomy for resistant hyperparathyroidism. It leads to rapid normalization of serum calcium, allows termination of intravenous calcium supplementation, reduce calcium supplement requirement, and prevents complications associated with severe hypocalcemia.



Submission ID: A-0047
Poster Viewing

Category: Doctor
Topic: Glomerulonephritis

ANTI-NEUTROPHIL CYTOPLASMIC ANTIBODY (ANCA)- ASSOCIATED VASCULITIS (AAV) & ADENOCARCINOMA OF THE LUNG: A CASE REPORT

Pamela Varn Teing SAW¹, Yee Yan LEE¹, Sridhar RAMANAIDU¹, Kah Mean THONG¹, Wei Mei LIM², Chek Loong LOH¹

¹Department of Medicine, Hospital Raja Permaisuri Bainun, Ipoh, Malaysia

²KPJ Ipoh Specialist Hospital, Ipoh, Malaysia

Introduction:

The co-occurrence of malignancy and ANCA-associated vasculitis is uncommon, and its relation is possibly bidirectional and poorly understood. This is a challenging case of MPO-ANCA vasculitis presenting as RPGN and interstitial lung disease in the background of newly diagnosed adenocarcinoma of the lung.

Case Presentation:

A 64-year-old gentleman, smoker of 50 pack years, presented with persistent cough for 1 month following an episode of upper respiratory tract infection. He was diagnosed with right lung adenocarcinoma with bilateral mediastinal lymphadenopathy and a contralateral lung nodule. The lung adenocarcinoma had no treatable mutations but strongly expressed PD-L1. Significant interstitial lung fibrosis was incidentally noted in the CT thorax. 1 month following the diagnosis of lung carcinoma, prior to chemotherapy, the patient developed right leg weakness and acute kidney injury with serum creatinine of 317 $\mu\text{mol/L}$. Renal biopsy revealed pauci-immune focal necrotizing & sclerosing glomerulonephritis and an anti-MPO of 576 u/mL . He was treated with methylprednisolone and Rituximab, followed by tapering doses of prednisolone. His leg weakness resolved, but the kidney impairment did not improve significantly. Treatment for the malignancy had been deferred as the renal impairment, pulmonary fibrosis, and concurrent autoimmune disease had limited his options for chemotherapy, radiotherapy and immunotherapy. Interestingly, a repeat FDG-PET scan showed reduction in size of the tumor and lymphadenopathy. Despite a suppressed CD19 4 weeks post Rituximab, the patient subsequently developed rapid progression of interstitial lung disease and succumbed to respiratory failure.

Discussion and Conclusion:

This case demonstrates that the inflammatory nodules in AAV could potentially confound lung cancer staging. It also highlights the knowledge gaps in the best treatment for AAV associated interstitial lung disease. Concurrent management of the malignancy may be important for optimal response to AAV treatment.



Submission ID: A-0049
Poster Presentation

Category: Doctor
Topic: Others : Kidney Education

IMPACT OF EDUCATION ON ADVANCED CHRONIC KIDNEY DISEASE (CKD) PATIENTS - A ONE-YEAR RETROSPECTIVE COHORT STUDY AT A TERTIARY CENTRE WITH CKD EDUCATOR SERVICE

Jun Min EM¹ Chang Chuan CHEW¹ Wan Noorhayati WAN ABDULLAH²
Fatimah Hasanah MOHD RADZI² Wan Ahmad Hafiz WAN MD ADNAN¹ Soo Kun LIM¹

¹ Renal Division, Department of Medicine, University Malaya Medical Centre, Malaysia
² Renal Daycare and Dialysis Unit, University Malaya Medical Centre, Malaysia

Introduction:

Advanced chronic kidney disease (CKD) patients are known to progress into end-stage kidney disease (ESKD). This study aims to identify the impact of kidney replacement therapy (KRT) education on the outcomes of these patients.

Methods:

This was a retrospective cohort study in a tertiary centre involving all advanced CKD patients referred to kidney educators from January 2023 until December 2023. Those who declined referrals or lost follow-up were excluded. Patient clinical status and biochemical results were collected from electronic medical records until 30th April 2024 and analysed using SPSS v29.0.2.

Results:

A total of 377 patients were included (mean age of 62.7±14.11 years old, 61.5% males, 38.5% females). At the first visit with educators, the median serum creatinine was 398 µmol/L and eGFR of 12 ml/min/1.72m², corresponded to stage 3 (6, 1.6%), 4 (119, 31.6%), 5 (197, 52.3%), and 5D (55, 14.6%). At the end of the study, another 101 patients were initiated on dialysis with a mean eGFR of 5.6±0.2 ml/min/1.72m² over a median of 90 days. Among ESKD patients, 89.1% required temporary catheters, 5.1% had prior Tenckhoff (TK) catheter insertion, 7.6% had prior arteriovenous fistula (AVF) creation, and 6.9% were under renal palliation. ESKD patients had 10.3% mortality over a mean duration of 39.3±7.6 days (all within the first 4 months). In patients with ESKD, 101 (64.7%) received prior education whilst 55 (35.3%) received education only after dialysis initiation. Those who received prior education had significantly lower temporary catheter usages (P=0.007), higher AVF creation rates (P=0.035) and TK insertion rates (P=0.028) than those who received after dialysis initiation. There was no significant difference in mortality (P=0.843, OR 0.9, 95%CI 0.3-2.6).

Conclusions:

Our study showed that patients educated before dialysis initiation had lower temporary catheter usage and higher AVF and TK catheter rates, but no mortality difference.

Submission ID: A-0052
Poster Viewing

Category: Doctor
Topic: Others : CKD Promotion and prevention

CONTINUOUS CKD PROMOTIVE AND PREVENTION IN BANGLI DISTRICT: PATIENT GUARDIAN METHOD

I Made Rama Putra^{1,2}, Putu Bagus Aditya Putra Semara³

¹ Department of Dialysis, Bangli District Hospital, Indonesia ² Department of Medicine, Faculty of Medicine UNIZAR Mataram, Indonesia ³ Department of Medicine, Faculty of Medicine UHT Surabaya, Indonesia

Introduction:

Chronic kidney disease (CKD) prevalence is widely increase. Indonesian Renal Registry data shows that the number of hemodialysis (HD) patients in Indonesia has increased, especially in productive aged 35-64 years.

Spesific Objective:

A sistematical CKD promotive and prevention, and maintain Quality of Life (QoL) are needed

Methodology:

Cross sectional study.

Results:

There were 100 respondents consisting of 47 (47%) men and 53 (53%) women, with an average age of 47 ± 13 years recruited. We enrole the patient guardian ("wali pasien") method, a volunteer accompanies a number of patients and family. The respondents' education was elementary school 15 (15%), middle school 8 (8%), high school 43 (43%), college 11 (1%), bachelor's degree 24 (24%) and master's degree 1 (1%). The educational media preferred by patients is face-to-face, 84% of whom prefer online (by phone or social media). As many as 71 (71%) respondents stated that there was an increase in understanding after being given education. From the SF-36 questionnaire, we found that the average quality of life for patients was $74,51 \pm 7,17$

Discussion:

In patient populations with low social and economic education, the method for increasing knowledge and QOL is through mentoring. The more effective and preferred media is face-to-face educational media. We continue this program and more patients involvement

Conclusion:

Education is an important part in promotive, prevention, and maintain quality of life in CKD-HD patients. The face-to-face method is the patient's preferred educational medium, *Wali pasien* methode can improve the knowledge and quality of life of HD patients

Keywords:

CKD, HD, wali pasien, quality of life, promotive, prevention

Submission ID: A-0053
Oral Presentation

Category: Doctor
Topic: Others : DNLITE- IVD 103 AS A NOVEL
BIOMARKER TO PREDICT THE PROGRESSION
OF DIABETIC KIDNEY DISEASE

DNLITE- IVD 103 AS A NOVEL BIOMARKER TO PREDICT THE PROGRESSION OF DIABETIC KIDNEY DISEASE: PRELIMINARY RESULTS OF A PILOT STUDY

Krinath Renganadan¹, Nicholas Hee Ken Yoong ¹, Pavai Sthaneswar², Maisarah Jalalonmuhali³,
Lim Soo Kun³, Jeyakantha Ratnasingam¹

1. Endocrine Unit, Department of Medicine, Faculty of Medicine, University Malaya, Kuala Lumpur, Malaysia 2. Division of Laboratory Medicine, Department of Pathology, Faculty of Medicine, University Malaya, Kuala Lumpur, Malaysia 3. Nephrology Unit, Department of Medicine, Faculty of Medicine, University Malaya, Kuala Lumpur, Malaysia

Introduction:

Diabetic kidney disease (DKD) remains the leading cause for renal replacement therapy in Malaysia. Although estimated GFR (eGFR) and urinary albumin to creatinine ratio (UACR) have been validated for screening of DKD, these parameters may not pick up early DKD. Fetuin A is a novel marker associated with vascular disease, obesity and kidney disease. DNLite IVD-103 is a modified fragment of post-translational Fetuin A that could be measured in the urine. We aim to examine DNLite-IVD 103 as a potential biomarker for DKD.

Methodology:

This cross-sectional study correlates DNLite-IVD 103, UACR and eGFR in adult T2D patients regardless of background therapy or glucose control with CKD Stage 2-4. We excluded those on renal replacement therapy, newly diagnosed T2D (< 6 months), T1D and pregnancy. Fresh urinary samples were collected and the Fetuin A was measured by human uPTM3-DKD immunoassay.

Results:

We analyzed 201 patients (mean age: 68.1 ± 10.9 years, 45% women) with multi-ethnic background (Malays 41%, Chinese 21%, Indians 35%, Others 3%). 30% had established ASCVD and breakdown of CKD stages were stage 2-27.9%, 3A-18.7%, 3B-27.9%, 4-21.6%. The mean HbA1c, eGFR and duration of diabetes were $7.3 \pm 1.3\%$, 47.1 ± 21.3 ml/min/ $1.73m^2$ and 22.4 ± 11 years respectively. The median uACR was 8.4 (72.7) mg/mmol. The median values for DNLite IVD103 and their interquartile range (IQR) at CKD Stages 2, 3A, 3B and 4 were 69.8 ng/mg (42.9), 43.2 ng/mg (102.9), 50.4 ng/mg (79.1) & 147.2 ng/mg (247.5) respectively. DNLite IVD 103 shows direct correlation with UACR ($r^2=0.29$, $p < 0.001$) and inversely correlated with eGFR ($r^2= 0.06$, $p < 0.02$).

Conclusion:

DNLite IVD 103 could be used as an alternative marker for DKD. Further analysis and study of patients with early DKD stage without albuminuria is required to validate the advantage of this biomarker in clinical practise.

Submission ID: A-0056
Poster Viewing

Category: Doctor
Topic: Peritoneal Dialysis

EVALUATION OF INTRAPERITONEAL VANCOMYCIN LEVEL ADEQUACY ON DAY-3 AND ITS CLINICAL OUTCOME IN PERITONEAL DIALYSIS PERITONITIS PATIENTS AT HOSPITAL SULTANAH BAHYAH

Alwin TYH¹, Ching CH¹, Mohamad FA¹, Ong YC¹, Ku Ruziana KR¹, Kavitha Appava¹, Adib MI¹

Nephrology Department, Hospital Sultanah Bahiyah, Alor Star, Kedah

Introduction:

Intraperitoneal (IP) vancomycin is commonly used as first-line empirical therapy for peritoneal dialysis (PD) peritonitis. As per local practice, therapeutic drug monitoring (TDM) of vancomycin is performed on day-3 instead of the recommended day-5 by ISPD. This study aims to assess the distribution of patients achieving vancomycin therapeutic levels (>15-20 mg/L) by day 3 among PD peritonitis patients.

Methods:

A retrospective study was conducted involving patients with PD peritonitis treated with IP vancomycin among end-stage kidney disease (ESKD) patients on CAPD from January 2023 till December 2023 at Hospital Sultanah Bahiyah, Kedah. Relevant data encompassing patient demographic, TDM levels and PD outcomes were collected from hospital electronic databases. Presence of associations were tested with univariate analysis.

Result:

A total of 57 (42.5%) patients were treated with IP vancomycin out of 134 PD peritonitis patients. The mean age was 49.7±16.86 years old, predominantly male (52.6%). The overall mean TDM vancomycin level on day-3 was 17.1±5.05 mg/L. Up to 75.4% (n=43) of our patients had an either low or within TDM at day-3 which required addition of IP vancomycin. 41.9% (n=18) who achieved low or within target level TDM were given 15-20 mg/kg prescription, while 44.2% (n=19) were given 21-30 mg/kg prescription. Only a minority of patients achieved higher than therapeutic TDM level of >20mg/L at day-3 (n=14, 24.6%) with a mean prescription dose of 21.8±3.36 mg/kg. Majority of the resolved PD peritonitis cases had a within level TDM Day-3. Residual urine and Kt/v were not found to be associated with TDM level.

Conclusion:

The study revealed that most patients achieved either low or normal therapeutic levels, necessitating the addition of IP vancomycin by the third day of treatment. This supports the local practice of conducting TDM for vancomycin on the third day rather than the fifth day of treatment.

Submission ID: A-0057
Poster Viewing

Category: Doctor
Topic: Basic Science

CORRELATION BETWEEN PROTEIN-BOUND UREMIC TOXINS LEVELS AND SEVERITY OF UREMIC PRURITUS: A SYSTEMATIC REVIEW

Marsuki Hardjo¹, Marhaen Hardjo¹,

¹ Department of Biochemistry, Faculty of Medicine Hasanuddin University, Makassar, Indonesia

Introduction:

Uremic pruritus (UP) is a common and distressing symptom in patients with chronic kidney disease (CKD), particularly those on hemodialysis, impacting their quality of life. Indoxyl sulfate (IS) and other protein-bound uremic toxins (PBUTs) have been implicated in the pathogenesis of UP, but the relationship between serum levels of these toxins and pruritus severity remains unclear. This systematic review aims to evaluate the association between serum levels of protein-bound uremic toxins, particularly indoxyl sulfate, and the severity of UP in CKD patients, aiming to address this knowledge gap.

Methods:

We conducted a comprehensive search of databases including PubMed, Embase, and Cochrane Library up to May 2024. Studies included were those that measured serum levels of IS and other PBUTs in CKD patients and assessed pruritus severity using standardized scales. Data extraction covered study design, patient population, methods of toxin measurement, and pruritus assessment, ensuring thorough evaluation of eligible studies.

Results:

The review identified mixed findings regarding the correlation between serum PBUTs levels and UP severity across six studies. Specifically, one study reported no significant difference, three demonstrated a positive association, and two suggested that lowering serum IS effectively eased pruritus, hinting at its potential role in modulating UP via anti-inflammatory effects. However, the nature of these mixed findings requires further scrutiny and analysis to elucidate potential mechanisms underlying the observed associations.

Conclusion:

In conclusion, our systematic review reveals a significant and independent association between lowering serum PBUTs levels, particularly IS, and the severity of UP in CKD patients. These findings underscore the potential role of PBUTs in the pathogenesis of UP and highlight the importance of continued investigation into the underlying mechanisms, offering potential avenues for therapeutic interventions to alleviate this distressing symptom.



Submission ID: A-0058
Poster Viewing

Category: Doctor
Topic: Glomerulonephritis

PREVALENCE OF IGA NEPHROPATHY: A 10 YEARS' EXPERIENCE FROM JINNAH POSTGRADUATE MEDICAL CENTRE, KARACHI, PAKISTAN

Ayesha Ejaz¹, Muhammad Ali¹, Shafique Ahmed¹, Ghazala Usman¹, Abdul Manan Junejo¹,
Hina Iram¹, Moiz Ahmed¹,

Jinnah Postgraduate Medical Center, Jinnah Sindh Medical University, Karachi, Pakistan

Introduction:

Immunoglobulin A (IgA) is considered the most frequently dealt primary glomerulonephritis, worldwide. The Berger's disease or IgA nephropathy is a mesangial proliferative glomerulonephritis characterized by deposition of immunoglobulin A in kidneys. The aim of the study was to report the prevalence of IgA nephropathy and the associated parameters (age, gender, and body mass index) in our population.

Methods:

This was a retrospective study, accomplished at Jinnah Postgraduate Medical Centre, Karachi, Pakistan, from June 2009-May 2019. The histopathology and immunofluorescence of renal biopsies of 519 patients were studied and the prevalence of biopsy proven IgA nephropathy was determined. The Chi-square test was used for association of biopsy proven IgA nephropathy with age, gender, and body mass index. A p-value of 0.05 or less was considered statistically significant.

Results:

A total of 519 biopsies were studied, out of those, only 4 (0.8%) had IgA nephropathy with male dominance in the last 10 years at Karachi, Pakistan. Male to female ratio was found to be 3:1. The most common clinical indication for renal biopsy was isolated hematuria in 50% of the cases followed by acute kidney injury and nephritic syndrome with 25% each respectively. Most of the patients suffering from proteinuria (> 3.5gm/24 hours), microscopic hematuria in 80% cases, high blood pressure in 50% cases, with other associated symptoms including edema, gastrointestinal, and skin-related symptoms reported.

Conclusion:

Immunoglobulin A (IgA) nephropathy is not a commonly diagnosed glomerular lesion. Further large-scale cohorts can aid in determining the other factors associated with a low frequency of IgA nephropathy.

Submission ID: A-0059
Poster Viewing

Category: Doctor
Topic: Haemodialysis

OUTCOMES OF DIALYSIS AMONG PATIENTS WITH END-STAGE RENAL DISEASE (ESRD)

Ayesha Ejaz,¹ Abdul Manan Junejo,¹ Muhammad Ali,² Ahsan Ashfaq,³ Abdul Rauf Hafeez,⁴ and Sadaqat Ali Khan⁵

¹ Nephrology, Jinnah Postgraduate Medical Centre, Karachi, PAK

² Nephrology, Fazaia Ruth Pfau Medical College, Karachi, PAK

³ Physiology, Liaquat National Medical College, Pakistan., Karachi, PAK

⁴ Nephrology, Sindh Institute of Urology and Transplantation, Karachi, PAK

⁵ Urology, Behram Medical Center, Kohat, PAK

Introduction:

Dialysis-associated morbidity and mortality among end-stage renal disease (ESRD) patients has been increasing, despite the advancement in pharmacological treatment and dialysis technology. The aim of this study was to determine the outcomes of dialysis among ESRD patients presenting at the nephrology department of Jinnah Postgraduate Medical Centre (JPMC).

Methodology:

This cross-sectional study was conducted during the year 2015-2016, including 105 ESRD patients. Data were collected through a structured questionnaire inquiring about patient's demographics and hemodialysis details. The outcomes in terms of survival and death within one month of dialysis were also recorded. The statistical analysis was carried out using SPSS version 21.0 (IBM Corp, Armonk, NY).

Results:

Gender distribution showed that most of the study patients were males (58.1%). The mean duration of ESRD was 7.65 ± 3.69 months while the mean duration of hemodialysis was 36.5 ± 5.65 hours. Among the comorbid conditions, hypertension (69.5%) and diabetes (64.8%) were the most prevalent, followed by renal stones, chronic pyelonephritis, and chronic nephritis. The outcomes indicated mortality among 16.2% of patients; all deceased ESRD patients had diabetes ($p < 0.05$). Moreover, the duration of hemodialysis was significantly associated with the outcomes of dialysis ($p < 0.05$).

Conclusion:

In conclusion, a considerable mortality rate was observed among ESRD patients undergoing hemodialysis. Moreover, patient survival was better with the increased duration of dialysis



Submission ID: A-0060
Poster Viewing

Category: Doctor
Topic: Basic Science

SYSTEMIC LUPUS ERYTHEMATOSUS COMPLICATED WITH CASTLEMAN DISEASE: A CASE REPORT

Dr. Ahsan Khurshid, Dr. Anum Abbas, Dr. Suhail Iqbal Malik

Affiliation: Department of Nephrology, Bahawal Victoria Hospital, Bahawalpur, Pakistan

Castleman disease is a rare nonclonal heterogeneous group of diseases involving lymphoid tissue. It often simulates other inflammatory conditions and malignancies. Systemic lupus erythematosus, being a multisystem inflammatory disorder, shares many features with Castleman disease. Here, we report a similar case of a middle age female who was initially diagnosed as SLE with lupus nephritis, for which she was put on steroids and immunosuppressants. After commencing treatment, her symptoms resolved and she remained in remission for some period. However, her condition was complicated with Castleman disease later on. For diagnostic and therapeutic purpose, she underwent lymph node resection and to our surprise, her condition improved. Castleman disease and SLE are two separate disorders that have some common symptoms. However, distinction between these two is crucial as their management differs significantly. Further research is needed in addition to the introduction of more disease-specific serological markers that will help us in making early diagnosis of CD. This will save us some precious time for the management of critically ill patients who need medical interventions on urgent basis.

Submission ID: A-0062
Poster Viewing

Category: Doctor
Topic: Haemodialysis

BEYOND THE NUMBER OF PILLS- UNVEILING THE IMPACTS OF POLYPHARMACY IN ESRD

Tze Cheng WONG¹, Jun Hua TAN², Ann Chee LU², Dian Han LING², Julia Siew Hsia LOI², Winnie Win Nie LAU², Habbibur Rahman MOHD FAUZI³, Jun LEE⁴

¹ Department of Medicine, Sarikei Hospital, Sarawak, Malaysia

² Department of Pharmacy, Sarikei Hospital, Sarawak, Malaysia

³ Saratok Hospital, Sarawak, Malaysia

⁴ Nephrology Unit, Department of Medicine, Sarawak General Hospital, Kuching, Sarawak, Malaysia

Introduction:

Polypharmacy, the concurrent use of five or more different medications by a patient for a disease, is commonly associated with End Stage Renal Disease (ESRD).

This study aims to quantify the burden of polypharmacy among ESRD patients. It also provides insights into the association between polypharmacy and drug adherence, dialysis symptoms, and quality of life.

Methods:

A multicenter cross-sectional study was conducted among ESRD patients in central Sarawak. Medication count, drug adherence (using MyMAAT score), dialysis symptoms (using Dialysis Symptoms Index), and health-related quality of life (HRQoL) (using EuroQol-5D-5L) were measured. Patients were grouped into tertiles by medication count. Data were analysed using Pearson correlation.

Results:

A total of 120 patients (57.5% male, 42.5% female) with a median age of 56.5 years old (SD = 12.58) were included, of which 90% (n=108) were on hemodialysis, and the rest on peritoneal dialysis. The mean medication count is 8.66 (SD = 2.66). A significant proportion of patients (n= 111, 92.5%) are being prescribed five or more medications. The most common drug prescribed for this group is calcium carbonate (n= 104, 93.7%) for mineral bone disorders, a common ESRD complication. 89.2% (n= 99) of patients in this group have hypertension, and 61.6% remain suboptimally controlled. Antihypertensives commonly used include calcium channel blockers (n= 85, 76.6%) and beta-blockers (n= 50, 45%). While there is no significant correlation between medication count and drug adherence (r= -0.01, p= 0.90), it is significantly associated with increased dialysis symptoms (r= 0.216, p= 0.031) and reduced HRQoL (r= -0.202, p= 0.043). The patients in the highest tertile experienced 1.51 more symptoms compared to the lowest.

Conclusion:

Polypharmacy is common in ESRD patients due to its associated complications and comorbidities. It is associated with increasing dialysis symptoms and reduced quality of life. Multidisciplinary efforts are needed to address this.

Submission ID: A-0063
Poster Viewing

Category: Doctor
Topic: Peritoneal Dialysis

A 1-YEAR DESCRIPTIVE STUDY OF EXIT SITE INFECTION IN PERITONEAL DIALYSIS PATIENTS IN MALAYSIA – A SINGLE CENTER RETROSPECTIVE COHORT STUDY.

¹Pearly Kim Aik SIM, ¹Sun Quan EE, ¹Tharshannia BALAIKERISNAN, ¹Irene WONG, ¹Khairul Annuar ABD MANAF, ¹Norleen ZULKARNAIN SIM, ¹Shahnaz Shah Firdaus KHAN,

¹ Hospital Tengku Ampuan Rahimah, Klang

Introduction:

Home based peritoneal dialysis (PD) is a widely accepted modality for end stage kidney disease. However, exit site infection (ESI) is a common complication which carries significant morbidity. We aim to analyse the incidence, characteristics and outcome of ESI in our centre.

Methods:

We conducted a retrospective cohort study of PD patients with ESI at Hospital Tengku Ampuan Rahimah, Klang between January 1, 2023, and December 31, 2023. All cases were followed up until the outcome were achieved.

Results:

In 2023, there were 293 PD patients in our centre. A total of 101 ESI occurred during the study period. The median age is 36.6 years. Among them, 51.5% were males, 88% were Malay and 70.9% were diabetic. The mean PD vintage was 2.6 years. The rate of ESI is 0.36 episodes per patient-years, with a lower rate in automated PD patients compared to continuous ambulatory PD (19.9% vs 80.1%). Among them, the majority (76.7%) were on closed dressing and 57.5% were assisted PD. Most of the patients (75.6%) are more than 6 months in PD programme. Besides that, 14.9% of the ESI occurred within 1 month of PD catheter insertion and 12.9% of the ESI were associated with peritonitis. Majority of cases (70.9%) yielded no growth, whereas the positive cultures were *pseudomonas aeruginosa* (9.7%), *methillin resistant staphylococcus aureus* (1%), *Echerichia coli* (1%), *Citrobacter koseri* (1%), *serattia sp.* (1%) and mixed growth (1.9%). More than half of the cases resolved with antibiotics (54.4%), while 22.3% required deroofing and decuffing and 16.5% were refractory to antibiotics resulting in catheter removal.

Conclusion:

ESI is a major complication with a high rate of morbidity. Our study showed a significant rate of culture negative ESI. Therefore, improvising technique for culture positive yield which would have a beneficial impact of patient's outcome should be emphasized.

Submission ID: A-0064
Poster Viewing

Category: Doctor
Topic: Paediatric Nephrology

UTILIZING INTEGRATED LUNG AND INFERIOR VENA CAVA ULTRASOUND FOR DRY WEIGHT ASSESSMENT IN CHILDREN UNDERGOING MAINTENANCE HEMODIALYSIS - INSIGHTS FROM A SINGLE CENTER EXPERIENCE

Dr Shahida Perveen¹, Dr Noor-ul- Ain², Dr Naureen Akhtar³

University of Child Health Sciences,
The Children's Hospital Lahore, Pakistan

Introduction:

Precise dry weight evaluation holds significant importance for individuals with end-stage renal disease (ESRD) undergoing hemodialysis. Lung ultrasonography proves invaluable for pediatric dialysis patients, distinguishing dry weight changes from volume overload through B-lines scoring, guiding dialysis adjustments effectively. The objective was to evaluate dry weight, assess fluid removal effectiveness, and adjust dialysis prescriptions in ESRD patients using ultrasonography.

Methodology:

A prospective cross-sectional study was conducted at The Children's Hospital Lahore's Pediatric Hemodialysis unit over six months, from July to December 2022. *The study included 30 children aged 5-16 years* undergoing maintenance hemodialysis and exhibiting signs of overload. Ultrasound was performed for B-lines and IVC diameter before and after dialysis. Dialysis prescriptions were modified and patients were monitored through sequential scans. SPSS version 20 was used for data analysis. Tests of normality and paired-sample applied.

Results:

A total of 30 patients were enrolled with 53.3% being males. The average pre-dialysis weight was 25.39 kg, systolic blood pressure was 150.67 mmHg and diastolic blood pressure was 92.6 mmHg. Pre-dialysis pleural and pericardial effusions were observed in 86.7% patients, while B-lines were present in 63.3%. Majority of children (83%) were on twice-weekly dialysis and remaining were prescribed thrice-weekly dialysis. A significant reduction in weight, blood pressure, pleural and pericardial effusion, B-lines, and IVC diameter was found after dialysis. Dialysis prescription was adjusted following the first session, with 80% of subjects receiving thrice-weekly sessions, 16.7% daily, and 3.3% twice-weekly dialysis.

Conclusion:

Lung ultrasound presents a noninvasive, radiation-free and cost-effective method for evaluating fluid volume changes in pediatric dialysis patients, particularly through the measurement of inferior vena cava diameter and B-lines. This modern modality performed at the patients' bedside enables adjustments to dialysis prescriptions based on the acquired information. Moreover, sequential lung scans can aid in revising dialysis frequencies to attain the desired dry weight.



Submission ID: A-0065
Poster Presentation

Category: Doctor
Topic: Paediatric Nephrology

HETEROGENEITY IN CLINICAL MANIFESTATIONS OF JUVENILE NEPHRONOPHTHISIS: UNDERSTANDING THE ROLE OF ASSOCIATED GENES AND VARIANTS

Dr. Shahida Perveen¹, Dr. Naureen Akhtar², Dr. Saad Qayyum³, Dr. Samreen⁴,
Dr. Mohammad Aboidullah⁵

Department of Pediatric Nephrology, University of Child Health Sciences,
The Children's Hospital Lahore, Pakistan

Introduction:

Nephronophthisis involves a broad genetic spectrum, with over 25 implicated genes, and approximately 10% to 20% of cases exhibit symptoms resembling ciliopathy syndromes. The study aimed to correlate the clinical and genetic spectrum of children with Nephronophthisis, a significant cause of end-stage renal disease characterized by cystic kidney disease.

Methodology:

From September 2017 to August 2022, a descriptive cross-sectional study was conducted at The Children's Hospital Lahore's Department of Pediatric Nephrology. Children aged 5 to 15 with suspected Nephronophthisis were included in the study. Demographics, anthropometric data, clinical symptoms (polyuria, polydipsia, night blindness, mental retardation), dialysis necessity, and laboratory parameters (urea, creatinine, arterial blood analysis, complete blood count, urine analysis) were collected. Genetic analysis, excluding molecular testing, was conducted for all patients. SPSS version 24 was used for data analysis.

Results:

Among the 25 patients, 72% were male and they were distributed across age groups: 55% in the 5-10 years age range and 45% in the 11-15 years age group. Consanguinity was observed in 76% children. The most common genetic mutation was NPHP1 detected in 68% of subjects, while NPHP4 and NPHP5 were found in 12% and 8% of patients, respectively, with 12% revealing no mutation. The symptoms of polyuria and polydipsia were present in all children with growth retardation seen in 68%, night blindness found in 56% and hypertension in 8% patients. Renal ultrasound revealed shrunken kidneys with poor/absent corticomedullary differentiation in all the subjects, while cysts were present in 24%. Dialysis was required by 16% children, mostly presenting with acute symptoms, severe renal dysfunction, and metabolic acidosis. Syndromic variants were identified with Joubert syndrome observed in 8% patients and Senior Loken syndrome present in 32% children.

Conclusion:

Genetically diverse Nephronophthisis warrants consideration in patients with polyuria, polydipsia, and unexplained chronic kidney disease, with or without extra-renal signs.

Submission ID: A-0066
Poster Viewing

Category: Doctor
Topic: Glomerulonephritis

UNVEILING THE MYSTERY: C3GN MASQUERADING AS POST- INFECTIVE GLOMERULONEPHRITIS - A CASE REPORT

TIONG KU¹, HEMLATA KG², BEE BC¹, ESTHER TZZ¹

¹Nephrology Department, Selayang Hospital
²Pathology Department, Hospital Kuala Lumpur

Introduction:

C3 Glomerulonephritis (C3GN) is an uncommon condition, with an incidence of approximately 1-2 cases per million people, resulting from abnormalities in the alternative complement pathway.

Methodology:

A retrospective and observational case study

Results:

A 21-year-old man, previously healthy, developed nephrotic syndrome three weeks after a recent upper respiratory tract infection (URTI). He had no history of drug use, autoimmune symptoms, or family history of kidney disease. Physical examination revealed pedal edema but was otherwise unremarkable, with normal blood pressure. Laboratory tests upon presentation showed elevated serum creatinine (84mmol/L), low serum albumin (20g/L), and high levels of total cholesterol (12.3mmol/L). Urine analysis indicated significant proteinuria (6.37g/day). Initial autoimmune and infectious screenings were negative, except for low levels of C3 complement protein. A renal biopsy confirmed a membranoproliferative glomerulonephritis (MPGN) pattern with immune complex deposition, including IgG, C3, and C1q. The differential diagnosis included post-infectious glomerulonephritis, lupus nephritis, or C3 glomerulonephritis (C3GN). Despite high-dose steroid therapy, the patient remained in nephrotic syndrome. Oral mycophenolate mofetil (MMF) was initiated empirically to treat for lupus nephritis/C3GN. After six months of MMF treatment, partial remission was achieved, with reduced proteinuria (2.5g/day) and improved serum albumin levels (37.7g/L). Repeat biopsy, using electron microscopy (EM), revealed diffuse foot process effacement and intramembranous electron dense deposits, consistent with C3 deposition. The overall histopathological and EM findings confirmed MPGN with dominant C3 deposits, consistent with C3GN. Treatment was intensified with dietary control, angiotensin-converting enzyme inhibitors (ACEi), and continued MMF therapy, resulting in further improvement in proteinuria (latest reading of 1g/day).

Conclusion:

C3GN, a rare condition, has a grim prognosis, with approximately 50% of patients progressing to end-stage kidney disease within ten years. Therefore, close monitoring of renal function is essential, along with consideration for enrollment in clinical trials focusing on targeting the complement pathway.



Submission ID: A-0067
Poster Viewing

Category: Doctor
Topic: Mineral Bone Disease

SUCROFERRIC OXYHYDROXIDE IN TACKLING HYPERPHOSPHATAEMIA IN DIALYSIS PATIENT: SELAYANG HOSPITAL EXPERIENCE

TIONG KU, BEE BC, ESTHER TZZ

Nephrology Department, Selayang Hospital

Introduction:

Managing phosphate levels in dialysis patients presents a challenge due to the association of hyperphosphatemia with CKD bone mineral disorder. The recent introduction of Sucroferric Oxyhydroxide (Velphoro), a new phosphate binder with demonstrated efficacy, at Selayang Hospital offers a promising solution.

Methodology:

Case series

Results:

Five patients were started on Velphoro with four of them on peritoneal dialysis and one on haemodialysis. Mean follow up time was 5.4 months. Baseline serum phosphate ranged from 2.34-2.94mmol/L. Pre treatment mean corrected serum calcium was 2.19 mmol/L with mean iPTH of 30 pmol/l. Post treatment, all the patient had reduction of phosphate with level ranging from 1.2-2.83mmol/L. Velphoro was withheld in one patient due to significant drop of phosphate level from 2.37 to 1.2mmol/L within 4 months time. Mean iPTH post treatment was 30.7pmol/l which remained static possibly due to short duration of follow up. Mean Hb was increased from 10.7g/dl to 11.26g/dl with no adjustment of erythropoietin stimulating agent. All patients tolerated Velphoro without experiencing any gastrointestinal side effects.

Conclusion:

Sucroferric Oxyhydroxide is effective in managing hyperphosphataemia with minimal side effect, thus preventing the progression of CKD MBD.



Submission ID: A-0068
Poster Viewing

Category: Paramedic
Topic: Others : CKD

THE IMPACT OF SOCIAL MEDIA IN INCREASING AWARENESS ABOUT KIDNEY DISEASE TO THE GENERAL POPULATION

Jasitha Thavarajah ¹, Azneza Aziz¹, Zulaifahrini Hassan¹, Nur Ezzaty Mohammed Kazmin ², Lydia Kamaruzaman ², Rozita Mohd ²

¹Department of Nursing, Hospital Canselor Tuanku Muhriz, Malaysia

²Department of Medicine, Faculty of Medicine, Universiti Kebangsaan Malaysia, Malaysia

Introduction:

Social media has become an important tool in spreading information and it is widely used for medical awareness campaign. We aimed to determine the impact of kidney disease awareness program via social media to the general population.

Methodology:

A survey was conducted using a google form questionnaire that being distributed via WhatsApp link. Respondent were adult aged >18years old who were non-medical personnel. The questionnaire consisted of 12 questions including demographic profile, education level, type of social media engagement, participation in any medical forum online and its impact on their self-awareness.

Results:

A total of 391 respondent answered the questionnaire consisted of female 254 (65%) with Malay 235 (60.1%), Chinese 101 (25.8%), Indian 45 (11.5%) and others 10 respondents (2.6%). A total of 137 (35.1%) respondents aged (20-40 years old), 145 within age group of 41-50 years old (37.1%) whilst 50 (12.8%) respondents were elderly (>60 years old). Majority of the respondents had tertiary education level (n=242, 61.9%) and 134(34.3%) had secondary education level. Fifteen (3.8%) respondents obtained only primary education level. One third of the respondents had family history of kidney disease. Only 3 (0.8%) respondents did not own smartphones. Majority of them (91.8%) used smartphones for calls and social media engagement whilst 77% and 72.6% use it for messaging and online shopping respectively. Most of them admitted being actively engaged with social media (n=316,80.8%). The commonest media platform engagement was whatsapp (92.8%), facebook (71.4%), Instagram 62.9% and tiktok 62.4%. A total of 226(57.8%) respondents attended medical forum conducted online which resulted in 64.6% (n=146) of them proceeded with medical test and subsequently 78 (34.5%) were found to have kidney disease and referred for nephrology assessment in a tertiary Centre.

Conclusion:

Leveraging social media as platform for medical campaign greatly enhancing kidney disease awareness and encouraging early screening.



Submission ID: A-0070
Poster Viewing

Category: Doctor
Topic: Haemodialysis

DIALYSIS RECOVERY TIME AND SYMPTOM BURDEN AMONG MAINTENANCE HEMODIALYSIS PATIENTS: A MULTI-CENTRE STUDY

Muhammad Ali Amanullah ¹, Benny Lim Chia Wue ¹, Nurdiana Mazlan ¹,
Nur Sharafina Safiee ¹, Nursyahidah Md Pishal ², Adibah Abu Kasim ³,
Mohd Nazim Shamsudin ³, Lily Mushahar ¹

¹ Department of Nephrology, Hospital Tuanku Ja'afar, Seremban

² Department of Internal Medicine, Hospital Port Dickson

³ Department of Internal Medicine, Hospital Rembau

Introduction:

Dialysis recovery time (DRT) is an important factor that affects the overall wellbeing of patients undergoing maintenance hemodialysis. High symptom burden has been associated with increased hospitalisation and poor clinical outcome.

This study aims to determine the association between DRT and patient-reported symptom burden in hemodialysis patients.

Methods:

A cross-sectional study was conducted among prevalent ESKD patients aged >18 years, >3 months on hemodialysis in three different centers. Demographic data, comorbidities, dialysis parameters and laboratory investigations were recorded. All patients were asked regarding DRT and interviewed using a validated Integrated Palliative Outcome Symptom (iPOS) renal questionnaire. They were divided into three groups: Group 1: DRT<2 hours, Group 2: DRT between 2 to 4 hours, and Group 3: DRT >4 hours.

Results:

A total of 141 patients were included in the study, with mean age of 58.2 (range 18 to 84) years. Seventy-nine (56.0%) patients were male, and 81 (57.4%) were diabetics. Eighteen patients (12.7%) reported DRT >4 hours, compared to 32(22.7%) in group 2, and 91 (64.5%) in group 1. Patients with prolonged DRT >4 hours in Group 3 had the highest symptom burden with an iPOS score of 5.44 ± 2.770 vs 2.63 ± 3.17 in Group 1 and 4.22 ± 3.56 in Group 2, $p=0.001$. Prolonged DRT was significantly associated with anemia, lower magnesium levels and longer dialysis vintage, $p<0.05$, but not related to gender, age, diabetes, dialysate sodium, ultrafiltration rate, BMI, or vascular access.

Conclusion:

Prolonged dialysis recovery time is significantly associated with higher symptom burden amongst maintenance hemodialysis patients. DRT can be utilized in clinical practice to identify patients with high symptom burden who may benefit from interventions aimed at correcting treatable causes of prolonged DRT. This will further improve clinical outcome and overall quality of life.

Submission ID: A-0071
Poster Viewing

Category: Doctor
Topic: Haemodialysis

FACTORS ASSOCIATED WITH POST-DIALYSIS FATIGUE IN MAINTENANCE HEMODIALYSIS PATIENTS: A MULTI-CENTRE STUDY

Muhammad Ali Amanullah ¹, Benny Lim Chia Wue ¹, Nurdiana Mazlan ¹,
Nur Sharafina Safiee ¹, Nursyahidah Md Pishal ², Adibah Abu Kasim ³,
Mohd Nazim Shamsudin ³, Lily Mushahar ¹

¹ Department of Nephrology, Hospital Tuanku Ja'afar, Seremban

² Department of Internal Medicine, Hospital Port Dickson

³ Department of Internal Medicine, Hospital Rembau

Introduction:

Dialysis recovery time (DRT) is a reliable indicator of post-dialysis fatigue which adversely affects quality of life. Fatigue is a core outcome in Standardised Outcomes In Nephrology for Hemodialysis (SONG-HD) initiative. This study aims to determine factors influencing DRT in maintenance hemodialysis patients.

Methods:

A cross-sectional study was conducted among prevalent ESKD patients aged >18 years, >3 months on hemodialysis in three different centers. Demographic data, comorbidities, dialysis parameters and laboratory investigations were recorded. All patients were asked "How long does it take for you to recover from a dialysis session?". They were divided into three groups: Group 1: DRT<2 hours, Group 2: DRT between 2 to 4 hours, and Group 3: DRT>4 hours.

Results:

A total of 141 patients were included in the study, with mean age of 58.2 (range 18 to 84) years. Seventy-nine (56.0%) patients were male, and 81(57.4%) were diabetics. Eighteen patients (12.7%) reported DRT >4 hours, compared to 32(22.7%) in group 2, and 91(64.5%) in group 1. Multivariate analysis revealed that mean hemoglobin levels were significantly lower in patients with DRT >4 hours at 9.77 ± 1.58 g/L vs 11.07 ± 1.73 g/L in group 1, and 10.88 ± 1.36 g/L in group 2, $p=0.045$. Patients with DRT >4 hours also had lower serum magnesium levels, 0.906 ± 0.228 compared to 1.06 ± 0.179 in group 1 and 0.985 ± 0.195 mmol/L in group 2, $p=0.002$. Mean dialysis vintage was significantly longer in group 3, at 102.13 ± 85.12 months vs 55.60 ± 45.18 months in group 1 and 59.68 ± 50.86 in group 2, $p=0.03$. There was no significant association between DRT and age, gender, diabetes, BMI, dialysate sodium or serum albumin.

Conclusion:

Anemia, lower magnesium levels and longer dialysis vintage significantly affected DRT. Pragmatic measures in correcting anemia and maintaining high normal magnesium levels could potentially improve quality of life in patients experiencing post-dialysis fatigue.



Submission ID: A-0073
Poster Viewing

Category: Paramedic
Topic: Haemodialysis

OPTIMIZING HEMODIALYSIS: EFFECTIVE MANAGEMENT OF INTRADIALYTIC HYPOTENSION USING SODIUM PROFILE

Hui-Chung Tsai^{*}, Hsin-Yu Chen

Division of Nephrology, Department of Internal Medicine, Kaohsiung Chang Gung Memorial
Hospital, Taiwan, R.O.C.

Introduction:

Literature indicates that intradialytic hypotension (IDH) is associated with higher complication rates and mortality. Premature termination of dialysis sessions can lead to the inability to achieve target body weight and other dialysis-related complications. This study targeted a high-risk IDH population, employing a new sodium profile treatment model to improve IDH incidence.

Methods:

Conducted from December 2022 to August 2023, the study included 5593 sessions, retrospectively reviewing medical records and analyzing dialysis data. Interventions included a customized dialysis menu, free traditional Chinese medicine therapy 'acupressure,' a contact book for communication with family members, and an integrated health education platform 'Dialysis Regular Talk - LINE official account. Results showed that the application of the sodium profile reduced machine setup time from 129 seconds to 30 seconds and walking distance from 3520 cm to 240 cm. The incidence of IDH decreased from 21.5% to 13.5%, HD vascular access obstruction rate from 1.57% to 0.66%, and HD discomfort symptoms from 100% to 30.3%. The accuracy of primary caregivers' knowledge about IDH increased from 63.2% to 92.9%, nursing handover completeness from 61.9% to 90.6%, home care education completeness from 77.9% to 99%, and patient and family satisfaction from 67% to 99%.

In conclusion, using the sodium profile for IDH patients significantly improved clinical dialysis quality, reduced nursing workload, and decreased the carbon footprint. However, the study lacked data on greenhouse gas emissions from different facilities and treatments, which is a primary limitation.



Submission ID: A-0074
Poster Viewing

Category: Doctor
Topic: Others : palliative nephrology

MAPPING SYMPTOMS SEVERITY WITH EGFR STAGES IN PALLIATIVE NEPHROLOGY CONTEXT, SINGLE CENTRE EXPERIENCE

Ku Ruziana K.R.¹, Mohammad F.A.¹, Ching C.H.¹, Ong YC¹, Alwin TYH¹, Kavitha A¹, Adib MI¹

Department of Nephrology, Hospital Sultanah Bahiyah¹

Introduction:

Palliative care in Malaysia currently more well recognized and accepted by patient and caretaker as one of treatment for chronic kidney disease. Early recognition and establishment of symptoms may alleviate unnecessary symptoms and psychological impact towards patient and caretaker.

Methodology:

We conducted an observational study from January 2023 till December 2023 in Hospital Sultanah Bahiyah involving 52 patients in stage IV and V opted for palliative care management. Data including patient demographic and patient eGFR (calculated based on CKD epi) retrieved from hospital electronic database. Patient symptoms were evaluated using Integrated Palliative Outcome Score-Renal (IPOS) questionnaire.

Results:

Out of 52 patients opted for palliative care management, 40.4% (n=21) had more than two follow-ups. Up to 61.9% were female with mean age of 71 years old. In stage IV, significant symptoms include difficulty ambulating (73.3%), lethargy (68.9%) and constipation (68.9%). Post second visit, there was improvement in difficulty in ambulation (28%), lethargy (33.3%) and constipation (100%). Stage V presented with more formidable challenges in symptoms control, three most reported symptoms are difficulty in ambulation (100%), lethargy (50%) and constipation (50%) and during second visit, there were also improvement in difficulty in ambulation (28%), lethargy (33.3%) and constipation (44%). Whereas most of other symptoms both in stage IV and V shows more than 50% stability in symptoms severity. In terms of emotional health aspect, anxiety improved in 33.3% of Stage IV patients and 38.9% of Stage V patients. Depression improvement was noted in 33.3% of stage IV patients and 22.2% of Stage V patients. These findings underscore the significant impact of palliative care approach on both physical and emotional well-being.

Conclusion:

Palliative care approach effectively alleviates physical symptoms and enhances emotional well-being in patients with advanced renal disease. Our study demonstrates significant symptoms improvement among patient opted for palliative care underscoring the value of early intervention and consistent follow-ups.



Submission ID: A-0075
Poster Viewing

Category: Doctor
Topic: Peritoneal Dialysis

RARE CASE OF TB PERITONITIS AND ENCAPSULATING PERITONEAL SCLEROSIS

Zhun Han WONG ¹, Ioanna Ting Yung SIM ¹, Clare Hui Hong TAN ¹

¹Nephrology Unit, Medical Department, Sarawak General Hospital, Kuching, Malaysia

Background:

Encapsulating peritoneal sclerosis (EPS) can arise as a complication of prolonged PD therapy and may also be triggered by peritonitis. The precise pathogenesis remains elusive, however the widely accepted "two-hit theory" suggests chronic peritoneal membrane injury from prolonged PD and insult from peritonitis as first and second hit respectively.

Case presentation:

This is a 46-year-old female with hypertension and end-stage renal disease (ESRD) on continuous ambulatory peritoneal dialysis (CAPD) for 7 years. She has history of exit site infection but no peritonitis. She presented with abdominal pain and turbid but culture negative peritoneal dialysis (PD) fluid in December 2022 and was successfully treated with IP antibiotics. However, the peritonitis relapsed 2 weeks after completion of antibiotics and was resistant to treatment. Tenckhoff catheter was removed and she was converted to hemodialysis (HD). Subsequent positive PD fluid TB culture and GeneXpert assay prompted initiation of anti-TB treatment. Her calcium level was also high necessitating the switch to non-calcium based phosphate binders. Despite stopping CAPD, she has persistent poor oral intake, abdominal symptoms and distension necessitating regular peritoneal tapping for symptomatic relief. Four months into anti-TB therapy, she developed subacute intestinal obstruction, and CT abdomen revealed features consistent with EPS. Steroid therapy was given for 3 months with initial response. However, she had a recurrence of intestine obstruction after stopping steroid for a month. Further imaging demonstrated worsening small bowel obstruction, prompting the reintroduction of steroid and addition of tamoxifen therapy. Her condition gradually improved and she completed nine-months of anti-TB medications and six-month of Steroid and Tamoxifen therapy, and she remained well.

Discussion:

TB peritonitis needs to be suspected in recurrent or resistant culture negative PD peritonitis especially in the presence of unexplained hypercalcaemia. EPS should be considered in patients with persistent abdominal symptoms, and poor nutrition despite stopping CAPD.

Submission ID: A-0076
Poster Viewing

Category: Doctor
Topic: Haemodialysis

VASCULAR ACCESS AT DIALYSIS INITIATION IN HEMODIALYSIS PATIENTS IN SOUTHERN SARAWAK

Zhun Han WONG¹, Rebecca Su-Li CHEW¹, Clare Hui Hong TAN¹

¹Nephrology Unit, Medical Department, Sarawak General Hospital, Kuching, Malaysia

Introduction:

Patients dialyzing using arteriovenous fistula (AVF) vs HD catheter has reduced recently as reported in the Malaysian Dialysis and Transplant Registry. One of the factors could be many incident dialysis patients not having functioning AVF at HD initiation.

Methodology:

Patients starting dialysis in 2022 in 12 HD centres in Southern Sarawak were identified from the HD centres and e-National Renal Registry(eNRR) database. Information on their follow up, referral for AVF, creation of AVF and vascular access at HD initiation was collected retrospectively by review of clinic notes and hospital electronic database.

Results:

115 patients (mean age 57.6 years) were identified. 61% were male and 50.4% were of Malay ethnicity. Majority had diabetes (66.1%) and hypertension(86.1%). 105(91.3%) patients were under Nephrology follow up prior to HD initiation and 72 of them (68.6%) had AVF created at HD commencement with a median AVF creation day to HD initiation of 132 days. At HD initiation, 53(46.1%) used AVF while 62(53.9%) used IJC, whereas 100% of those never under Nephrology follow up started HD via an IJC. Creation of AVF was by vascular surgeons (62.6%), private surgeons (16.5%), urologis t(14.8%) and plastic surgeons(6.1%). Of the 19 patients who had AVF created but not useable at initiation, the main reason was poor maturation (89.5%) There was no statistically significant differences compare to those started HD using AVF except for the median duration of AVF creation (27 days vs 184 days, $p<0.001$) and age of patients (mean age 51.5 vs 60.2, $p=0.01$)

Conclusion:

68.6% of our patients have AVF created before initiation of HD and 46.1% initiated HD via AVF. Main reasons for not having AVF at initiation of HD was late referral to Nephrology and poor maturation of AVF due to short duration between AVF creation and HD initiation likely contributed by late referral as well.

Submission ID: A-0077
Poster Viewing

Category: Paramedic
Topic: Peritoneal Dialysis

AN ASSESSMENT OF KIDNEY DISEASE AND QUALITY OF LIFE SHORT FORM (KDQOL-SFTM) IN CAPD PATIENTS IN HOSPITAL RAJA PEREMPUAN ZAINAB II

Siti Norizan ABDUL RANI¹, Aziani YACOB², Nur Sulaiha AHAMED SEEN PAKIR², Syahmil CHE SOH², Wan Hasnul Halimi WAN HASSAN³

¹ Clinical Research Centre Kelantan, Hospital Raja Perempuan Zainab II, Kelantan, Ministry of Health Malaysia

² Department of Pharmacy, Hospital Raja Perempuan Zainab II, Kelantan, Ministry of Health Malaysia

³ Department of Nephrology, Hospital Raja Perempuan Zainab II, Kelantan, Ministry of Health Malaysia

Introduction:

Health related quality of life (HRQOL) is increasingly well recognised as an important measure of treatment outcome. The study aimed to study the general health component of HRQOL and associated factors in CAPD patients in Hospital Raja Perempuan Zainab II (HRPZ II).

Methodology:

A cross-sectional study was conducted involving patients on CAPD with follow up under Department of Nephrology, HRPZ II. A pro forma was used to record data from patients' file and validated KDQOL - SF Malay for Singapore Version 1.2 questionnaire was self-administered to the patients. The generic core (SF-36 Health Survey Scores) of the questionnaire was divided into 8 domains. Total score for each domain is 100. The data was analysed using IBM SPSS version 25.0.

Results:

A total of 41 patients on CAPD were included with mean (SD) age of 42.1 (16.89) years and mostly Malay (97.6%). Three-fourths (75.6%) had diabetes and most (92.7%) had hypertension. Most (92.7%) were on Erythropoietin Stimulating Agents (ESA). Mean medication number is 10.2 (2.16) and mean pill number 21.1 (7.0). Mean (SD) overall health rating was 67.6 (17.72). The domain Emotional Role has the highest mean (SD) score [71.7 (16.50)], followed by Social Function [68.2 (26.09)] and Pain [68.0 (23.56)]. Diabetes mellitus and dyslipidemia were reversely associated with Emotional Wellbeing ($p < 0.05$). Haemoglobin and haematocrit level was positively correlated with General Health, Emotional Wellbeing and Social Function ($p < 0.05$). Higher level of haemoglobin and haematocrit were also associated with lesser pain and fatigue.

Conclusion:

This study showed our CAPD patients had a good overall HRQOL (mean overall health rating score of 67.6) and this is comparable to other developing country as Turkey and South Africa. Diabetes, dyslipidemia, haemoglobin and hematocrit level were associated with patients' HRQOL.



Submission ID: A-0078
Oral Presentation

Category: Paramedic
Topic: Peritoneal Dialysis

A GLANCE OF HEALTH RELATED QUALITY OF LIFE IN CAPD PATIENTS IN HOSPITAL RAJA PEREMPUAN ZAINAB II: AN ASSESSMENT OF DISEASE SPECIFIC CORE OF KDQOL - SFTM

Siti Norizan ABDUL RANI¹, Aziani YACOB², Nur Sulaiha AHAMED SEEN PAKIR², Syahmil CHE SOH², Wan Hasnul Halimi WAN HASSAN³

¹ Clinical Research Centre Kelantan, Hospital Raja Perempuan Zainab II, Kelantan, Ministry of Health Malaysia

² Department of Pharmacy, Hospital Raja Perempuan Zainab II, Kelantan, Ministry of Health Malaysia

³ Department of Nephrology, Hospital Raja Perempuan Zainab II, Kelantan, Ministry of Health Malaysia

Introduction:

Health related quality of life (HRQOL) is increasingly well recognised as an important measure of treatment outcome. The disease specific core [End Stage Renal Disease (ESRD)-targeted areas] of Kidney Disease and Quality of Life Short Form (KDQOL - SFTM) questionnaire explores HRQOL in dialysis patients related to the disease specifically. The study aimed to study the component of disease specific core of HRQOL in CAPD patients in Hospital Raja Perempuan Zainab II (HRPZ II).

Methodology:

A cross sectional study was conducted involving patients on CAPD with follow up under Nephrology Department, HRPZ II. A pro forma was used to record data from patients' file and validated KDQOL - SF Malay for Singapore Version 1.2 questionnaire was self-administered to the patients. The disease specific core [End Stage Renal Disease (ESRD)-targeted areas] of the questionnaire was divided into 11 domains. Total score for each domain is 100. The data was analysed using IBM SPSS version 25.0.

Results:

A total of 41 CAPD patients were included. The mean (SD) of overall disease specific core score was 70.4 (10.38). The domain Staff Encouragement has the highest mean (SD) score [86.0 (16.58)], followed by Sexual Function [83.6 (26.26)] and Patient Satisfaction [79.7 (17.29)]. Patients who were employed showed better tolerance to the effect of kidney disease and felt more beneficial to dialysis staff encouragement. Patients with higher haemoglobin, haematocrit and iron level showed better tolerance to disease symptoms and the effect of kidney disease. They also had better sleep ($p < 0.05$). Those who had lower pill burden had more satisfaction on family support and the time they spend with their family ($p = 0.013$).

Conclusion:

This study showed that our CAPD patients had a good overall HRQOL with mean overall disease specific core scores of 70.4. Employment status, haemoglobin, haematocrit and iron level were associated with patients' HRQOL.



Submission ID: A-0079
Poster Viewing

Category: Doctor
Topic: Haemodialysis

THE EFFECT OF INTERDIALYTIC WEIGHT GAIN ON INFLAMMATORY PARAMETERS IN PATIENTS UNDERGOING HEMODIALYSIS TWICE A WEEK

Anggraini Permata SARI¹, Calvin Kurnia MULYADI¹, Elizabeth Yasmine WARDOYO²,
Aryan Yohanes Djojo¹

¹Department of Internal Medicine, Fatmawati General Hospital of South Jakarta, DKI Jakarta,
Indonesia

²Nephrology Division, Fatmawati General Hospital of South Jakarta, DKI Jakarta, Indonesia

This study aims to assess the relationship between excessive IDWG and inflammatory parameters that occur in patients undergoing hemodialysis twice a week. 86 patients were included in this study, and divided into two groups. All patients used AVF to avoid infection factors due to access which could affect the research results. However, researchers could not eliminate hepatitis B and C factors, as well as the length of time the patient underwent hemodialysis. All patients were measured for interleukin 6 and malnutrition inflammation score (MIS). The research method was cross sectional and mean differences were calculated. There is a difference in the mean of MIS (achieved IDWG vs not achieved; 5.01 vs 6.41), but no significant results were obtained ($p = 0.12$). But, in terms of interleukin 6, there was a significant mean difference between the two groups (achieved IDWG vs not achieved; 10,86 vs 17,2, $p = 0.04$). Even though it is said that MIS has equivalent values interleukin 6, in this study it is difficult to conclude whether IDWG has an influence on inflammatory parameters. It is necessary to screen for other confounding factors that can improve the results of this study,



Submission ID: A-0080
Poster Viewing

Category: Paramedic
Topic: Haemodialysis

ASSOCIATED FACTORS FOR SUCCESSFUL ARTERIOVENOUS FISTULA (AVF) OUTSOURCING PROGRAMME IN KELANTAN

Sharifah Nursamihah SYED ABD RAHMAN¹, Khairul ZAINUDIN¹, Siti Romaino MOHD NOR²,
Wan Hasnul Halimi WAN HASSAN^{1,2}

¹Nephrology Department, Hospital Raja Perempuan Zainab II, Kelantan, Malaysia, Ministry of Health

²Clinical Research Centre (CRC) Kelantan, Hospital Raja Perempuan Zainab II, Kelantan, Malaysia, Ministry of Health.

Introduction:

Arteriovenous fistula (AVF) is the most preferred vascular access for hemodialysis. However, some of the patients required hemodialysis using a catheter while waiting for AVF creation, which catheters are associated with multiple complications. Hence, we conducted a study to assess the associated factors for successful AVF creation under an outsourcing programme in Kelantan.

Methodology:

A cross-sectional study, including all patients who underwent AVF creation under the outsourcing programme in Kelantan from 1st June 2022 until 31st December 2022. Medical records were reviewed, and data was extracted based on inclusion and exclusion criteria. Data were analysed using SPSS version 26. Prevalence was presented with percentage (%) and inferential statistics were performed using Pearson Chi-square. The level of significant alpha was set at 0.05.

Results:

A total of 175 patients underwent AVF creation under an outsourcing programme during this study period. AVF creation was done at 3 private centers with 145 (83%) of patients having the first-time of AVF creation while 30 (17%) cases of AVF created after a previous fistula failed. The success of AVF creation was 98 (56%) cases while 77 (44%) cases failed. Sixty (34%) of patients had complications and 17 (9.7%) cases passed away before cannulation. Univariate analysis shows that younger age (51.8 vs 56.4, $P = 0.032$), presence of hyperlipidemia ($P = 0.042$) and center of AVF creation (54.1 vs 49.3 vs 78.6, $P = 0.027$) were significantly associated with successful AVF creation.

Conclusion:

The significant associated factors for successful AVF are age, hyperlipidemia, and the center of AVF creation. Therefore, a comprehensive understanding of the factors influencing AVF success is essential for advancing patient care, improving clinical outcomes, and reducing the burden of vascular access-related complications in individuals requiring haemodialysis.

Submission ID: A-0081
Poster Viewing

Category: Doctor
Topic: Haemodialysis

CLINICAL ASSESSMENT AND OUTCOME OF THE ARTERIOVENOUS FISTULA (AVF) OUTSOURCING PROGRAM IN KELANTAN

Sharifah Nursamihah SYED ABD RAHMAN¹, Khairul ZAINUDIN¹, Siti Romaino MOHD NOR²,
Wan Hasnul Halimi WAN HASSAN^{1,2}

¹Nephrology Department, Hospital Raja Perempuan Zainab II, Kelantan, Malaysia, Ministry of Health. ²Clinical Research Centre (CRC) Kelantan, Hospital Raja Perempuan Zainab II, Kelantan, Malaysia, Ministry of Health.

Introduction:

Arteriovenous fistula (AVF) is the preferred vascular access for effective haemodialysis. An outsourcing program whereby public patients are sent to private centres for AVF creation. Therefore, our objective was to describe the sociodemographics among patients referred for an outsourcing program, determine the prevalence of successful AVF and determine the waiting time for AVF.

Method:

This is a cross-sectional study, including all AVF patients. The data were collected from 1st June to 31st December 2022 from all involved hospitals in Kelantan. Descriptive analysis was performed using SPSS version 26.

Results:

Over the study period, there were 175 patients; 53.1% males and 95.4% Malays. Their mean age (SD) is 53.8 (14.3) years. The AVF creation was done at 3 private centres; 74 from Centre-A, 73 from Centre-B and 28 from Centre-C. There were 145 (83%) patients who were first-time AVF creations and 30 (17%) cases of AVF created after a previous fistula failed. The type of fistula created were 85 (49%) Radio-Cephalic Fistula, 69 (39%) Brachio-Cephalic Fistula and 21 (12%) Brachio-Basilic Fistula. The majority of comorbidities are Diabetes Mellitus (69.1%), Hypertension (89.7%), Hiperlipidaemia (61.7%), Ischemic Heart Disease (13.1%) and Cerebro Vascular Accident (9.1%). The prevalence of successful AVF creation was 56% (98). The median (IQR) time of referral to creation is 28.5 (30) days, creation to the first puncture is 68 (54) days and referral to the first puncture is 104 (64) days, respectively. A total of 60 (34%) patients had complications including 31 (38%) primary failure, 6 (3.4%) stenosis, 5 (2.9%) hematoma, 3 (1.7%) thrombosis, 2 (1.1%) aneurysm, 1 (0.6%) steal syndrome and 12 (6.9%) others. Meanwhile, 17 (9.7%) cases passed away before cannulation.

Conclusion:

This study can be used as a baseline to assess the accuracy of clinical assessment in identifying suitable vessels for AVF creation compared to others.

Submission ID: A-0082
Poster Viewing

Category: Doctor
Topic: Glomerulonephritis

CASE ILLUSTRATION HENOCH SCHONLEIN PURPURA NEPHRITIS

CASE ILLUSTRATION HENOCH SCHONLEIN PURPURA NEPHRITIS Alva Samantha Djitmau 1* ,
Envy Kuswadi 2 , R Heru Prasanto 2 , Metalia Puspitasari 2 , Julia Wardhani 2 , Danny Pratama K
2 , Siti Nur Rohmah 1

1 Participant in the Kidney Hypertension Subspecialty Medical Education Program, Department of Disease Sciences In, Faculty of Public Health Medicine and Nursing UGM, Dr. Sarjito Hospital, Yogyakarta. 2 Staff of the Renal Hypertension Division, Department of Internal Medicine, Faculty of Health Medicine Public And Nursing UGM, RSUP Dr. Sarjito, Yogyakarta.

Abstract Introduction:

Henoch - Schonlein Purpura (HSP) is an inflammation of the small blood vessels (vasculitis), mediated by IgA immune complex. The classic presentation of HSP is red rash on skin (purpura). HSP nephritis is the HSP with kidney inflammation with manifestation hematuria and proteinuria.

Case illustration:

A 19 year old male presented to OPD with chief complaint foamy urine. Initially, he complained redness on both limb skin accompanied by pain and itchy skin. He also complaint abdominal pain, swollen on both limb and progressed to whole body edema. Vital signs were within normal limit. Physical examination found swollen on both limb, red rash on both leg. Laboratory results revealed hb13.8 g/dl; leukocytes 11,700/ μ l ; platelets 289,000/ μ l ; BUN 18 mg/dl; creatinine 1.24 mg/ dl; albumin 4.51 g/dl; triglycerides 462 mg/dl; urinalysis protein (+2), blood +-; ANA IF negative. Histopathological finding correspond to Henoch's Schonlein Purpura.

Discussion: Etiopathogenesis of HSP with or without nephritis still unclear. HSP itself is known as a deposition of IgA immune complex in the skin, glomerular capillaries and gastrointestinal tract. Immune complex in glomerular capillary, not only caused by circulating immune complex, but also caused by deposit of complex immune *in situ*. Criteria diagnostic of HSPN according to EULAR and PReS 1994 classification, namely palpable-purpura (absolute criteria), with one/more following manifestation : acute pain stomach, acute joint pain, gastrointestinal bleeding, IgA deposits on skin biopsy, and kidney disorder (hematuria and proteinuria).

Conclusion:

HSPN can progress to nephrotic syndrome and kidney failure. Guideline treatment of HSPN in adults still unavailable. Aim of comprehensive assessment and management of HSPN are monitoring of patient's condition and kidney function and early detection of complication.

Keywords:

Henoch- Schonlein Purpura (HSP), Henoch- Schonlein Purpura Nephritis (HSPN)

Submission ID: A-0084
Poster Viewing

Category: Doctor
Topic: Transplant

IgA NEPHROPATHY WITH BK VIRUS IN ALLOGRAFT KIDNEY POST TRANSPLANT : A CASE REPORT AT SARDJITO HOSPITAL

Agus giyarto^{1*}, Iri Kuswadi², R Heru Prasanto², Metalia Puspitasari², Yulia Wardhani², Danny Pratama K²

1* Fellow of the Nephrology and Hypertension, Department of Internal Medicine, Faculty of Public Health Medicine and Nursing UGM, Dr. Sarjito Hospital, Yogyakarta. 2 Staff of the Nephrology and Hypertension Division, Department of Internal Medicine, Faculty of Public Health Medicine and Nursing UGM, Dr. Sarjito Hospital, Yogyakarta.

Introduction:

Post-transplant IgA mesangial proliferative glomerulonephritis (IgAN) is a complication of kidney transplantation that can compromise long-term allograft function and survival. BK virus causes immune rejection and has direct toxic effects on the kidneys.

Case illustration:

A 47 year old man after kidney transplantation 4 years 5 months, suffering from St V CKD at the age of 37 years, of unknown etiology starting hemodialysis. After 4.5 years, undergoing an unrelated living donor kidney transplant. The allograft showed normal function with a stable creatinine around 1.13 mg/dL without urinalysis abnormalities. No Biopsy data after transplantation or before transplantation, no evidence of pathological rejection. 4,5 years after kidney transplantation, he complained of microhematuria and proteinuria, stable eGFR 80, stable serum creatinine level, negative ANA, negative p-ANCA, negative C-ANCA, negative GBM, Tacrolimus level 4.4 mg/mL, Virus BK positive, biopsy shows IgA Nephropathy (MEST-C oxford score: M1,E0, S1,T1, C0)

Discussion:

De novo IgAN in renal allografts less common than recurrent IgAN. Both are associated with decreased allograft function and survival. Survival of recurrent IgAN allografts was significantly worse. De novo IgA nephropathy after transplantation is a possibility of latent IgA nephropathy. Biopsy to assess MEST-C as a predictor of prognosis. Recurrence of crescentic IgAN results in worse allograft survival compared with non-crescentic IgAN. No optimal standard therapy for renal allograft IgAN, potentiating therapy with calcineurin inhibitors, steroids and intensive ARB inhibitors. BK virus infection is associated with the use of immunosuppressants, increasing the risk of rejection and graft loss. Treatment is limited and there is no efficient prophylaxis.

Conclusion:

In post-transplant patients who show persistent hematuria and proteinuria, caution is required. The MEST-C is useful for prognosis, non-crescentic IgAN has better prognosis than crescentic IgAN. BK virus infection increases the risk of graft rejection and loss.

Keywords:

Ig A Nephropathy Allograft kidney BK Virus



Submission ID: A-0085
Poster Viewing

Category: Doctor
Topic: Basic Science

UNCOVERED RENAL TUBULAR ACIDOSIS IN PREGNANCY- CASE SERIES

Choe Jing Ling, Yeoh Hung Yew, Saranya Thiagarajan, Khuan Wai Hou, Nurul Zaynah Nordin

Department of Nephrology, Hospital Kuala Lumpur, Malaysia

Background:

Renal tubular acidosis (RTA) occurs in four main types, three of which are major: Type1 (distal), Type2 (proximal), and Type4 (hyporeninemic hypoaldosteronism). These conditions may be inherited or acquired. Potassium imbalances may worsen during pregnancy and pose risks to mothers. Early detection and correction of chronic metabolic acidosis are crucial for preventing harm to the fetus.

Method:

From January to May 2024, we received four referrals of newly diagnosed RTA in pregnancy.

Case Summary:

Four patients presented with symptomatic hypokalemia and paralysis during the second and early third trimesters of pregnancy. One of these cases occurred in conjunction with Southeast Asian Ovalocytosis, and another involved a twin pregnancy. All of the patients had metabolic acidosis, with three of them having normal anion gap acidosis and one having a mixture of normal and high anion gap acidosis. All had normal renal function. An analysis of blood and urine corresponds with a diagnosis of distal renal tubular acidosis. None had supplements/substance abuse history, and one patient was detected to have medullary nephrocalcinosis. All patients responded well to the treatment, acidosis was corrected during pregnancy. Two of the patients delivered their babies at term, while the twin pregnancies were delivered at 35 weeks. Baby outcomes were variable with the birth weight between 2.09kg to 3.33kg. The twins developed respiratory distress and required intubation at birth, while another baby had congenital pneumonia and was successfully treated with antibiotics. All of them responded well to treatment and were discharged healthy.

Conclusion:

Our patients presented rather late in pregnancy and are likely to have been exposed to chronic metabolic acidosis during the first trimester. It is crucial to take proactive measures to detect this condition in early pregnancy, as prolonged metabolic acidosis could negatively impact fetal growth and pregnancy outcomes, especially when it is preventable.



Submission ID: A-0086
Poster Viewing

Category: Doctor
Topic: Glomerulonephritis

POST STREPTOCOCCAL GLOMERULONEPHRITIS MANIFESTING AS POSTERIOR REVERSIBLE ENCEPHALOPATHY SYNDROME IN A PREADOLESCENT: A CASE REPORT.

Noor Muslia Ahmad Mustafa¹, Anas Mat Asis¹, Alan Basil Peter², Muhammad Iqbal Abdul Hafidz¹

¹Nephrology Unit, Faculty of Medicine, Hospital Al-Sultan Abdullah, Universiti Teknologi MARA, Puncak Alam, Malaysia. ²Radiology Unit, Faculty of Medicine, Hospital Al-Sultan Abdullah, Universiti Teknologi MARA, Puncak Alam, Malaysia.

Introduction:

Posterior reversible encephalopathy syndrome (PRES) is a rare clinico-radiological diagnosis characterized by distinctive radiographic abnormalities and neurological symptoms, often linked to hypertensive encephalopathy. We report a case of post-streptococcal glomerulonephritis in a 12-year-old boy with features of PRES on magnetic resonance imaging (MRI) Brain.

Case presentation:

A 12-year-old boy presented with visual disturbances, headache followed by 3 bouts of generalised seizure, associated with hypertension. A week prior, he had sore throat, fever, and rashes over his right lower limb. Investigations revealed active urine sediment, urine protein creatinine ratio of 0.392 g/ mmol, urea of 39.0 mmol/L, creatinine of 142mmol/L, and elevated anti streptolysin (ASO) titre of 1648 IU/mL. An MRI Brain on both fluid-attenuated inversion recovery (FLAIR) and diffusion-weighted imaging (DWI) showed several foci of hyperintensity over bilateral parietal lobes and tiny hyperintense focus over the right cerebellum consistent with PRES. Treatment included antihypertensive and anticonvulsant, which were discontinued upon neurology clinic review. His renal function and urinalysis were normal. Follow-up MRI Brain at 5 months showed complete resolution of brain lesions.

Discussion:

PRES is underrecognized among pre-adolescents, affecting 0.04% to 0.4% of the population. It is associated with hypertension, renal diseases, immunosuppression therapy, organ transplantation, cancer, and autoimmune disorders. The condition is caused by disturbance of autoregulation of the blood-brain barrier, which results in endothelial dysfunction and vasogenic edema. Focal and generalized seizures accounts for 90% of symptoms. Radiological imaging is used to confirm the diagnosis of PRES. MRI brain findings in adults were similar in the paediatric group, with three prevalent classic patterns which are parieto-occipital, superior frontal sulcus, and holo-hemispheric watershed pattern. Treatment mainly supportive with aim to reverse the cause and blood pressure control using antihypertension and anticonvulsant.

Conclusion:

Post streptococcal glomerulonephritis can present as PRES, and is associated with favourable outcomes.

Submission ID: A-0087
Poster ViewingCategory: Doctor
Topic: Haemodialysis

THE USE OF SUCTION THROMBECTOMY DEVICE IN THROMBOSED ARTERIOVENOUS FISTULA WITH HIGH ANEURYSMAL CLOT BURDEN

Soo Ying YEW¹, Eric CHUNG^{5,6}, Wei Lin NG^{5,6}, Kin Wong CHAN⁵, Daoyao LING³, Muhammad Syafiq bin IDRIS³, Ahmad Rafizi Hariz Bin RAMLI^{3,4}, Soo Kun LIM^{1,2}, Chye Chung GAN^{1,2}

1. Division of Nephrology, Department of Medicine, University Malaya Medical Centre, Kuala Lumpur, Malaysia.
2. Division of Nephrology, Department of Medicine, Faculty of Medicine, University of Malaya, Malaysia.
3. Vascular Unit, Division of General Surgery, Department of Surgery, University Malaya Medical Centre, Kuala Lumpur, Malaysia.
4. Vascular Unit, Division of General Surgery, Department of Surgery, Faculty of Medicine, University of Malaya, Malaysia.
5. Department of Biomedical Imaging, University Malaya Medical Centre, Kuala Lumpur, Malaysia.
6. Department of Biomedical Imaging, Faculty of Medicine, University of Malaya, Malay

Introduction:

Arteriovenous fistula (AVF) is the access of choice for regular hemodialysis (HD). However, they are prone to thrombosis. Interruption in HD and new access creation could increase morbidity, mortality, and financial burden to the healthcare system. The trend of AVF thrombectomy has been shifting towards endovascular percutaneous angioplasty due to its advantage of immediate usage after the procedure. Here, we present comprehensive management of 2 cases utilizing the aspiration technique for endovascular thrombectomy (EVT) with good short- to moderate-term outcomes.

Methods:

Prospective case-series utilizing aspiration thrombectomy device for managing AVF thrombosis.

Results:

79-year-old gentleman with chronic restrictive lung condition with thrombosed left Radiocephalic AVF. Ultrasound scan (USG) revealed a clot-volume of 2000mm³ and 1920mm³ in the 'V' and 'A' aneurysm, respectively. Suction thrombectomy was selected to reduce the clot burden and minimize the embolic risk. Post-thrombectomy reassessment revealed brachial artery (BA) flow of 565.3 ml/min. Repeated USG in 2 weeks and 12 weeks showed BA flow volume of 721.0 ml/min and 1185ml/min, respectively. 80-year-old lady with thrombosed right Brachiocephalic AVF. USG revealed thrombosis from juxta-anastomotic segment up to the subclavian vein, with clot-volume of 3150mm³ and 6750mm³ in the 'A' and 'V' aneurysm, respectively. Post-pharmacomechanical thrombectomy angiogram revealed a smooth contrast flow along the AVF without residual stenosis. Immediate and repeated USG after 2 weeks showed BA flow of 533.2 ml/min and 584.1 ml/min, respectively. Both patients could resume HD immediately via the same fistula without need of interim hemodialysis catheter and complications.

Conclusion:

EVT has proven to be a safe and efficient method for AVF thrombectomy with a high aneurysmal clot burden of 6250mm³ without risk of clot dispersing into the pulmonary and systemic circulation. Hence, aspiration thrombectomy is a good alternative option for EVT and a preferred technique in patients with poor respiratory reserve.



Submission ID: A-0088
Poster Viewing

Category: Doctor
Topic: Haemodialysis

A SERIES OF UNFORTUNATE EVENTS

Wan Azzat WAN ZAIDI ¹, Jer Ming LOW ¹

¹: Department of Internal Medicine, Hospital Sultan Haji Ahmad Shah, Temerloh, Pahang

Introduction:

End stage kidney disease (EKSD) patients require temporary dialysis catheter if they do not have a permanent vascular access. We described a series of unfortunate events with catheter placement in our center for the past 6 months.

Case Series:

A 68-year-old ESKD had a new dialysis catheter insertion which was complicated with catheter malposition. CT thorax revealed the tip of catheter was in the right pleural space. Chest tube was inserted after surgical consult. Case 2 was a 56-year-old ESKD patient who required a temporary dialysis catheter due to left BCF stenosis. The catheter tip was not in situ. Urgent CT thorax showed the catheter traversed into the anterior mediastinal fat. Case 3 was a 66-year-old ESKD who had a temporary dialysis catheter inserted. A CT scan was performed as there was no flow from both dialysis catheter lumens. CT revealed the catheter traverse through the anterior subcutaneous tissue. In all three cases, the catheters were removed without any complications and subsequent catheter insertions were done by the attending nephrologist.

Discussion:

Using ultrasound guidance for dialysis catheter insertion is the current standard of care. With more patients progressing to ESKD without a proper ESKD life-plan, safe insertion of dialysis catheter under ultrasound guidance is paramount. This case series showed that despite the standard of care, complications occurred. Root cause analysis found this occurred because doctors are not confident with the usage of ultrasound. Following this, a small departmental workshop was conducted for medical officers led by the nephrologist. There were no more untoward incidents subsequently.

Conclusion:

Regular catheter insertion under ultrasound guidance workshop is required not only to train, but also to maintain the skills of doctors. This is to ensure a good and safe insertion of dialysis catheters for ESKD patients



Submission ID: A-0089
Poster Viewing

Category: Doctor
Topic: Haemodialysis

I AM NOT DIALYSING WELL DESPITE HEMODIALYSIS DONE!

Wan Azzat WAN ZAIDI ¹, Jer Ming LOW ¹

¹: Department of Internal Medicine, Hospital Sultan Haji Ahmad Shah, Temerloh, Pahang

Introduction:

Central venous catheter (CVC) insertion for hemodialysis (HD) carries risks and complications which include catheter tip migration which may not be able to be anticipated despite using ultrasound guidance insertion. We report an unexpected case of CVC malposition despite able to completed two sessions of HD.

Case Report:

A 66-year-old lady was diagnosed with ESKD after presented with uraemic symptoms. Double lumen dialysis catheter was inserted under ultrasound guidance and chest radiograph showed the tip to be in situ with good flow over both lumens. She completed a 2-hour and 3-hour HD sessions over the course of 2 days without any complications. She was then referred to nephrology team for long-term kidney replacement therapy counseling. Upon reviewing her, she denied any symptoms and blood parameters revealed persistently raised urea and creatinine despite 2 sessions of HD whereby both lumens of catheter had good flow. This led to a differential of catheter malposition. CT thorax was revealed that the catheter traversed through the right internal jugular and track along the anterior subcutaneous tissue with no lung or mediastinal injury. The catheter was then removed uneventfully without any surgical intervention. Subsequently a tunneled dialysis catheter was inserted under the guidance of fluroscopy. To date, she is doing well on regular thrice-weekly hemodialysis while waiting for the creation of arteriovenous fistula under surgical team.

Discussion & Conclusion:

This case highlights the importance of correlating clinical and biochemical parameters of the patients. We must always be mindful that chest radiographs are 2-dimension which may lead to incorrect interpretation of the catheter tip placement such as this case. Hence, a high index of suspicion is needed and if in doubt, a CT thorax to confirm the placement of the catheter tip is required.



Submission ID: A-0090
Poster Viewing

Category: Doctor
Topic: Basic Science

GUT MICROBIOTA PROFILE IN MALAYSIAN MALAY PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS

Rozita Mohd¹, Ahmad Naufal Mohd¹, Lydia Kamaruzaman¹, Ruslinda Mustafar¹, Syahrul Sazliyana Saharir¹, Chin Siok Fong², Shamsul Azhar Shah³.

¹ Nephrology Unit, Department of Medicine, Faculty of Medicine, UKM, Malaysia

² Medical Molecular Biology Institute, UKM, Malaysia ³ Department of Community Health, Faculty of Medicine, UKM, Malaysia

Introduction:

Emerging evidence suggests a potential link between intestinal dysbacteriosis and SLE development. However, the composition of gut microbiota influenced by various factors. This study was to determine the gut microbiota profile in Malay individuals with SLE and to correlate with their disease activity and dietary inflammatory index.

Methods:

A single-center case control study from April 2021 to September 2022 among Malay patients that were diagnosed with SLE using American College of Rheumatology (ACR) 2019. The patients were divided into three groups (Active Lupus Nephritis, Remissive Lupus Nephritis, Non-Renal SLE) which were matched for age and gender based on 1:1 ratio. Their demographic data were recorded. The routine blood and urine test were sent. 20mls of stool samples were collected for gut microbiota analysis. Disease activity was assessed using the SLE Disease Activity Index (SLEDAI-2K) score and dietary inflammatory index (DII) score was calculated based on semi-quantitative Food Frequency Questionnaire (FFQ).

Results:

A total of 24 SLE patients (21 females, 3 males) were recruited with median age of 34 years old (IQR 13). The active LN group had the lowest number of microbiotas reads, OTU and Shannon index compared to the other 2 groups but their differences were not significant. The main phyla detected were Firmicutes, Bacteroidetes, Actinobacteria and Proteobacteria. Active LN group had the lowest levels of Firmicutes and Bacteroidetes compared to the other two remissive groups, with median values of 37.6% (42.0) vs 58.6% (25.8) vs 43.8% (42.6) and 15.9% (43.9) vs 20.7% (40.9) vs 19.4% (40.1) respectively. However, their F/B ratio were not statistically significant. There was also no significant correlation between gut microbiota with their disease activity (SLEDAI-2K) and DII score.

Conclusion:

Present study demonstrated alteration in the gut microbiota composition among Malays SLE patients with variation depending on their disease severity of their conditions.

Submission ID: A-0091
Poster Viewing

Category: Doctor
Topic: Others : Salt-losing tubulopathy

A CASE OF GITELMAN SYNDROME ASSOCIATED WITH HYPERTHYROIDISM

Wen Jie LAU¹, Be Jinn LAI¹, Nur Dalila NOOR AZMAN SHAH¹,
Khai Vern POON¹, Clare Hui Hong TAN²

¹Department of Medicine, Bintulu Hospital, Sarawak, Malaysia ²Department of Nephrology,
Sarawak General Hospital, Sarawak, Malaysia

Introduction:

Gitelman syndrome (GS) is an inherited autosomal recessive renal tubular disorder characterized by hypokalaemia, hypomagnesemia, metabolic alkalosis and decreased urinary excretion of calcium, resembling the effects of thiazide diuretics. Patients may present with muscle weakness or lethargy. Patients with hyperthyroidism may also present with muscle weakness or periodic paralysis. There were reports of an association between these 2 conditions which seem to occur mainly in the Eastern Asian population, affecting predominantly females with a median age of 39 years old.

Case Summary:

A 52-year-old Iban lady with underlying mild hypertension for 6 years was referred to us for persistent microscopic haematuria, proteinuria and hypokalaemia (potassium: 2.8-3.2µmol/L) that was noted for > 1 year. She denied taking traditional supplements, NSAIDs, diuretics or laxatives, and there was no history of recurrent urinary tract infection. She was on Amlodipine 5mg daily and Slow K 1.2g tds. Her BP was 129/67mmHg, HR 100/min and she has no muscle weakness but complained of occasional palpitation. Laboratory investigations revealed haemoglobin: 11.5g/L, total white cell: 6.95x10⁹/L, platelet: 357x10⁹/L, urea: 3.8mmol/L, creatinine: 72µmol/L, sodium: 133µmol/L, K: 3.4mmol/l, Mg: 0.5mmol/l, albumin: 43g/l, corrected calcium: 2.21µmol/L, phosphate: 1.26µmol/L, urine dipstick: protein 1+ erythrocytes 3+, urine protein-creatinine ratio: 7mg/mmol. Venous blood gas: pH: 7.359, bicarbonate: 28mmol/L. Further investigations showed a low 24-hour urine calcium of 0.25mmol/24hours. Ultrasound KUB showed no evidence of nephrocalcinosis or obstructive uropathy. Thyroid function was sent due to the palpitation and tachycardia and reviewed free T4: 45.6pmol/L and TSH: < 0.005mIU/L. She was treated with carbimazole in addition to magnesium and potassium supplements.

Conclusion:

The association of GS with hyperthyroidism presents an intriguing area for further research. As the presentation of the 2 conditions may be similar, a consideration for the coexistence of both conditions needs to be considered so that appropriate treatment can be initiated.



Submission ID: A-0092
Poster Viewing

Category: Doctor
Topic: Haemodialysis

A POSSIBLE LIGHT AT THE END OF THE TUNNEL: USE OF SACUBITRIL/VALSARTAN IN END-STAGE RENAL DISEASE (ESRD) PATIENT WITH HEART FAILURE

Wen Jie LAU¹, Khai Vern POON¹, Eric Ka Wei LEE¹, Be Jinn LAI¹,
Nur Dalila NOOR AZMAN SHAH¹, Clare Hui Hong TAN²

¹Department of Medicine, Bintulu Hospital, Sarawak, Malaysia ²Department of Nephrology,
Sarawak General Hospital, Sarawak, Malaysia

Introduction:

ESRD patients have a very high prevalence of heart failure (~44%) due to shared risk factors such as DM and hypertension. In patients with HFrEF (EF≤40%), the PARADIGM-HF trial demonstrated that sacubitril/valsartan (SV) significantly reduced heart failure hospitalisation and mortality rate. However, there was limited data on its efficacy and safety in patients with eGFR <30 or ESRD as they were excluded from the trial.

Case Summary:

A 68-year-old lady, with underlying T2DM and ESRD with 10-year dialysis vintage, was admitted for septic shock secondary to ruptured sebaceous cyst of the right ear and paroxysmal fast atrial fibrillation. Prior to admission, her BP ranged from 110-112/74-96mmHg during haemodialysis (HD). Despite resolution of the infection, she required inotropic support during each HD due to intradialytic hypotension. Various attempts such as sequential ultrafiltration, albumin priming, and cool dialysate did not improve the condition. Echocardiography showed that she had newly diagnosed HFrEF (EF:35-40%), but no regional wall motion abnormalities. No ischemic changes were noted from serial electrocardiograms. She remained hospitalised after 1 month and refused referral for further cardiac assessment or intervention. Due to limited therapeutic options, she was treated with tablet SV 12/13mg BD, BP upon initiation was 93/49mmHg. 3 days later, she was able to wean off inotrope and was discharged. She tolerated outpatient HD thrice weekly with BP ranging from 102-127/63-94mmHg. There was no hyperkalaemia. Her pro-BNP level reduced by 87% over 10 days (from 10031.79pg/mL to 1294.74pg/ml). Unfortunately, 3 weeks after discharge, she was re-admitted with septic shock caused by wet gangrene of her right foot requiring below-knee amputation and she eventually passed away.

Conclusion:

SV can potentially improve cardiac function and HD tolerability in ESRD patients with severe decompensated heart failure. It appears to be safe without dropping the blood pressure or causing hyperkalaemia in our patient.

Submission ID: A-0093
Poster Viewing

Category: Doctor
Topic: Haemodialysis

USE OF THERAPEUTIC PLASMA EXCHANGE IN DISTRICT HEALTHCARE SETTING: REFLECTION FROM A SINGLE-CENTRE TREATMENT EXPERIENCE IN NORTHWESTERN SARAWAK

Wen Jie LAU¹, Be Jinn LAI¹, Wei Hang LIM¹, Qing Wei LIM¹, Ai Jia CHEW¹, Khai Vern POON¹,
Kar Ying YONG², Pei Lin CHAN³, Clare Hui Hong TAN⁴

¹Department of Medicine, Bintulu Hospital, Sarawak, Malaysia ²Department of Haematology, Miri Hospital, Sarawak, Malaysia ³Department of Endocrinology, Sarawak General Hospital, Sarawak, Malaysia ⁴Department of Nephrology, Sarawak General Hospital, Sarawak, Malaysia

Introduction:

Therapeutic plasma exchange (TPE) is an extracorporeal therapy used to treat various autoimmune diseases, neurological disorders and certain toxicities. The limited access to TPE and the absence of resident nephrologists in most hospitals in Sarawak present significant hurdles in managing these potentially life-threatening conditions.

Methods:

We identified 3 patients who underwent TPE in Bintulu Hospital between 2022 and 2023 (1 for thrombotic thrombocytopenic purpura, 2 for acute perforated viscus complicating thyrotoxicosis). Membrane filtration TPE was performed using Fresenius Plasma Flux P2 dry plasma filter with regime decided by nephrologist after teleconsultation.

Results:

Case 1 involved a 44-year-old gentleman who presented with 1-week history of epigastric pain. Initial blood tests showed haemolytic anaemia and thrombocytopenia (haemoglobin: 6g/dL; platelet: $12 \times 10^9/L$). Peripheral blood film demonstrated microangiopathic haemolytic anaemia with 10% schistocytes and true thrombocytopenia. He received total 11 cycles of TPE along with intravenous methylprednisolone and intravenous rituximab, leading to remission without relapse. Case 2 and 3 were 27- and 46-year-old gentlemen who presented with abrupt epigastric pain. On initial assessment, both were normotensive but tachycardic accompanied by fever. Physical examination revealed guarded abdomen with generalized tenderness. CXR showed air under the diaphragm while bedside ultrasound indicated free fluid in the abdomen. Free T4 were initially raised at 68.2pmol/L and 90.6pmol/L (12-22) respectively with suppressed TSH < 0.005mIU/L (0.27-4.2). Both were treated with intravenous hydrocortisone and rectal propylthiouracil due to compromised gastrointestinal tract. TPE was performed which reduced free T4 to 58 pmol/L and 51 pmol/L respectively before proceeding for exploratory laparotomy. Case 2 recovered well. However, case 3 succumbed due to worsening septic parameters.

Conclusion:

TPE can be a life-saving intervention in certain clinical conditions. It can be safely performed in district hospitals without resident nephrologist. This allows treatment in emergencies when patients may be difficult or at high risk for inter-hospital transfer.

Submission ID: A-0094
Poster Viewing

Category: Doctor
Topic: Infections

RISK FACTORS AND CLINICAL OUTCOMES FOR CENTRAL LINE ASSOCIATED BLOOD STREAM INFECTION (CLABSI) AMONG CHRONIC HEMODIALYSIS PATIENTS

Atiqah AYUB¹, Ahmad Hafiz WAN MD ADNAN², Helmi SULAIMAN³

¹Internal Medicine, University of Malaya, Kuala Lumpur, Malaysia ²Division of Nephrology, University of Malaya, Kuala Lumpur, Malaysia ³Division of Infectious Disease, University of Malaya, Kuala Lumpur, Malaysia

Introduction:

End-stage renal disease (ESRD) is a rapidly growing global healthcare challenge, including in Malaysia, where the number of dialysis patients has steadily increased over the past decade. About 20% of prevalent haemodialysis patients in Malaysia are using catheters. The incidence rates of CLABSI vary between 1 to 4 per 1000 patients-days. There has been only one study in Malaysia looking at the incidence of CLABSI in haemodialysis patients in Malaysia.

Methodology:

This is a retrospective cohort study done involving prevalent haemodialysis patients more than 18 years using dialysis catheters, who were admitted to the nephrology University Malaya Medical Centre ward from January 2020 to June 2021 with clinical symptoms and signs of CLABSI. Exclusion criteria were patients with acute kidney injury, the central venous catheter used for purposes other than for chronic haemodialysis and patients who developed CLABSI during inpatient stay.

Results:

In a study of 93 patients with 131 CLABSI episodes, 64.1% were male with a mean age of 60.1±13.55 years. Malay ethnicity was predominant (49.6%), and 59.5% had three or more comorbidities. 56.5% used non-cuffed catheters, mainly in the internal jugular vein (76.3%), with a median use of 60 days. Cuffed catheters had a higher rate of positive blood cultures (93.1%). 86.3% of non-cuffed catheters were removed compared to cuffed catheters (60.3%) while 19% of cuffed catheters were retained as compared to non-cuffed catheters (11%). Gram-positive organisms, particularly Methicillin Sensitive Staphylococcus Aureus, were common in both catheter types. In multivariate analysis, low albumin (OR 0.896, CI 0.811–0.989, p-value = 0.03) and high C-Reactive Protein (CRP) (OR 1.008, CI 1.002–1.015, p-value = 0.03) had a higher inpatient mortality.

Conclusions:

Low albumin and high CRP levels increase inpatient mortality risk, highlighting the need to address nutritional and inflammatory markers and improve vascular access management in patient care.

Submission ID: A-0095
Poster Viewing

Category: Doctor
Topic: Glomerulonephritis

A CASE REPORT IN DISTRICT HOSPITAL OF BINTULU, SARAWAK : C-ANTI-NEUTROPHIL CYTOPLASMIC ANTIBODIES- MYELOPEROXIDASE (C-ANCA- MPO) ASSOCIATED GLOMERULONEPHRITIS IN A YOUNG GIRL WITH DERMATOLOGICAL MANIFESTATIONS.

EKW- Lee ^{1, 2}, KV-Poon¹, WJ- Lau¹, CHH-Tan²

- ¹. Department of Medicine, Bintulu Hospital, Sarawak, Malaysia.
- ². Department of Renal Medicine, Kuching General Hospital Sarawak, Malaysia.

Introduction:

ANCA associated vasculitides are characterized by systemic, small-vessel vasculitis which can damage vessel integrity, leading to bleeding, tissue ischemia and necrosis. Although less prevalent among Asians(3%)and frequently affect female below 65 years old (66%). Younger patients have more musculoskeletal, cutaneous and ENT manifestations and less systemic, neurologic, renal and cardiovascular involvement.

Case Summary:

A previously healthy 15 years old girl presented in August 2023 for migratory polyarthropathies , non- blanchable maculopapular rashes of lower limbs and gastrointestinal losses. She denies constitutional, respiratory, asthma, allergic rhinitis, sinusitis and connective tissue disorder symptoms. There is negative family history of autoimmune or renal disease or usage of regular medication. Physical examination showed non- tender , non -blanchable bilateral legs maculopapular rashes with good urine output and facial edema. Other systemic review are non remarkable. Vital signs are stable. Her blood investigations revealed hemoglobin: 9.2g/dL, white cell count 25 x10³/μl(predominant eosinophil-42.8%, normal:1-6%), platelets 256 x10³/μl, urea:3.7mmol/L, creatinine 56μmol/L, AST 14U/L, ALT 8 U/L, albumin 30 g/L, CRP 25 mg/L, urine leukocytes 2+, proteinuria 2+, erythrocytes 5+, urine protein and creatinine ratio 201 mg/mmol. CXR, biohazard screening, blood and urine C&S were non-significant. Autoimmune investigation showed positivity for ANA(51.5CU) , anti-ribosomal P(22.9CU), C-ANCA and anti MPO(>729.8CU-positive) while tested negative for anti-DsDNA, P-ANCA, antiproteinase-3 and ENA. C3(1.1g/L) normal , C4(0.06g/L) low. Skin biopsy revealed leukocytoclastic vasculitis with eosinophils and focus of microgranuloma while skin immunofluorescence(IF): negative. Renal biopsy confirmed necrotising crescentic glomerulonephritis with focal sclerosing lesion(21/42 acute crescents). Immunofluorescence shows no evidence of immune complex deposits. She was started on 3 days course of pulse methylprednisolone followed by 6 cycles of IV cyclophosphamide monthly. She was discharged well.

Conclusion:

Cutaneous vasculitis can present in 30-50% of ANCA-associated vasculitis. Timely detection and accurate diagnosis(biopsy), prevents devastating, non reversible complications.



Submission ID: A-0096
Poster Viewing

Category: Doctor
Topic: Mineral Bone Disease

PARATHYROIDECTOMY FOR TERTIARY HYPERPARATHYROIDISM IN A TERTIARY CENTER: AN ANALYSIS

Xue Meng LIM, Siti Hafizah MOHAMMAD ISMAIL, Boon Cheak BEE

Department of Nephrology, Selayang Hospital, Selangor, Malaysia.

Introduction:

Tertiary hyperparathyroidism, a complex condition in end-stage kidney disease (ESKD) patients, results from autonomous parathyroid gland secretion. Parathyroidectomy is a well-established treatment for refractory cases.

Method:

Retrospective analysis was performed on ESKD patients on maintenance dialysis with tertiary hyperparathyroidism who underwent parathyroidectomy from October 2022 to April 2024 in a tertiary center to identify characteristics and outcome.

Result:

Twenty-six dialysis patients (mean vintage 8.4 years, SD 5.2) underwent parathyroidectomy, with mean age of 36.7 years (SD 11.4) and equal gender distribution. Primary causes of ESKD included diabetic kidney disease (15.4%), lupus nephritis, congenital kidney anomaly, analgesic nephropathy, hypertension, and renal tubular acidosis (each 3.8%). The majority had unidentified glomerulonephritis (65.4%). Baseline mean (SD) values were: calcium 2.38 (0.23) mmol/L, albumin 34.4 (5.9) g/L, phosphate 2.05 (0.48) mmol/L, ALP 718 (509) U/L, and iPTH 251.2 (140.1) pmol/L. Pre-operatively, mean (SD) daily supplements were elemental calcium 1.57 (0.95) g and vitamin D analogue 1 (0.89) µg. Non-calcium phosphate binders were prescribed: sevelamer (53.8%, mean dose 4.34 g/day, SD 1.27) and lanthanum (3.8%, 2 g/day). Only 50% of the patients, all in-center dialysis patients, had cinacalcet initiated at a median dose of 50 mg/day (IQR 12.5). Post-parathyroidectomy, intravenous calcium was given for 1-12 days (IQR 2) to treat hypocalcemia. Reported complications included catheter-related bloodstream infection (19.2%), pneumonia (15.4%), hematoma (11.5%), hungry bone syndrome (11.5%), and vocal cord palsy (7.7%). Patients were discharged at a mean of 7.7 days (SD 4.5) post-surgery, with a daily mean dose of elemental calcium 3.73 g (SD 1.62) and vitamin D analogue 16.96 µg (SD 7.68). Those with post-surgery complications had longer hospital stays (mean 11.3 days, SD 4.1) compared to those without complications (mean 4.5 days, SD 0.9).

Conclusion:

Parathyroidectomy is a safe and effective treatment for ESKD patients with tertiary hyperparathyroidism unresponsive to medical treatment.

Submission ID: A-0097
Poster Viewing

Category: Doctor
Topic: Haemodialysis

ARE LIFE QUALITY OF CAREGIVERS ASSOCIATED WITH QUALITY OF LIFE OF PATIENTS ON CHRONIC HEMODIALYSIS?

Riri MUZASTI^{1,2}, Christin GIOVANNI²

¹Division Nephrology and Hypertension, Faculty of Medicine, Universitas Sumatera Utara, Medan, Indonesia

²Departement of Internal Medicine, Faculty of Medicine, Universitas Sumatera Utara, Medan, Indonesia

Introduction:

As a long-term treatment for chronic kidney failure, hemodialysis impacts patients' and caregivers' quality of life (QoL). Previous studies showed that caregivers of hemodialysis patients endure significant caring pressure and their QoL was poor. Caregivers' QoL is essential to investigate because hemodialysis patients require comprehensive care and the caregivers are an important support system. Disruptions in the QoL of these caregivers impose double pressure on them and disrupt the care process. Therefore, this study was conducted to clarify the relationship of caregivers QoL with QoL of patients on chronic hemodialysis.

Methodology:

40 caregivers of chronic hemodialysis patients were enrolled in this cross-sectional study conducted in the teaching hospitals of Medan, North Sumatera, Indonesia. The research tools were the WHOQOL-BREF questionnaire to assess the quality of life and the sociodemographic and medical conditions questionnaire, which was devoted to the demographic information of patients and their caregivers.

Results:

For both of the 80 participants, the majority of the patients and their caregivers were female (55% vs 60.0%), with a median of age 40.50 (30-55) vs 41.00 (30-54) years, respectively. Patients' median BMI, hemoglobin, and albumin levels were 23.08 kg/m², 8.5 mg/dL, and 2.4 g/dL, respectively. Four themes of the caregivers' QoL had a significant relationship with hemodialysis patients' physical capacity ($p= 0.002$), social relations ($p< 0.001$), psychological state ($p= 0.008$), and environment ($p= 0.002$). However, there was no significant relationship between the QoL score of caregivers (both physical capacity, social relations, psychological state, and environment) with BMI, hemoglobin, and albumin levels of the patient ($P>0.05$).

Conclusions:

Since there is a direct relationship between caregivers' QoL and patients' QoL, caregivers should get more attention owing to problems encountered in supporting patients on chronic hemodialysis by the healthcare system and health policymakers.

Submission ID: A-0098
Oral Presentation

Category: Doctor
Topic: Haemodialysis

EFFECTIVENESS OF A MULTIDISCIPLINARY CARE MODEL FOR PATIENT WITH HAEMODIALYSIS ACCESS DYSFUNCTION BY VIRGIN TEAM

Soo Ying YEW¹, Eric CHUNG^{5,6}, Wei Lin NG^{5,6}, Kin Wong CHAN⁵, Daoyao LING³, Muhammad Syafiq bin IDRIS³, Ahmad Rafizi Hariz Bin RAMLI^{3,4}, Soo Kun LIM^{1,2}, Chye Chung GAN^{1,2}

1. Division of Nephrology, Department of Medicine, University Malaya Medical Centre, Kuala Lumpur, Malaysia.
2. Division of Nephrology, Department of Medicine, Faculty of Medicine, University of Malaya, Malaysia.
3. Vascular Unit, Division of General Surgery, Department of Surgery, University Malaya Medical Centre, Kuala Lumpur, Malaysia.
4. Vascular Unit, Division of General Surgery, Department of Surgery, Faculty of Medicine, University of Malaya, Malaysia.
5. Department of Biomedical Imaging, University Malaya Medical Centre, Kuala Lumpur, Malaysia.
6. Department of Biomedical Imaging, Faculty of Medicine, University of Malaya, Malaysia.

Introduction:

A dedicated dialysis access intervention team comprised of Vascular surgery, Interventional Radiology, and Interventional Nephrology (VIRGIN) was established to perform endovascular procedures for patient admitted to our centre with haemodialysis access dysfunction via the AVF clinic and emergency department University Malaya Medical Centre (UMMC).

Methods:

We retrospectively collected data from electronic medical records for the dialysis access percutaneous endovascular interventions performed in Angiography & Vascular Interventional Radiology from 1/1/2023-31/12/2023 and analysed the difference between the pre-VIRGIN era and post-VIRGIN era. Outcome measures include time-to-intervention from diagnosis for patient planned for fistuloplasty and/or thrombectomy.

Results:

A total of 96 endovascular interventions (23 thrombectomies) were performed on 85 patients. Forty one interventions were done during pre-VIRGIN and 55 cases were done during VIRGIN era (24 cases, 43.6% involved IN). Post-implementation, median time-to-intervention improved from 38.0 (IQR 34.25, 46.75) days to 28.0 (IQR 18.0, 45.0) days, $p < 0.003$ for fistuloplasty (1.36x faster); 21.0 (IQR 5.0, 42.0) days to 3.5 (IQR 1.25, 6.75) days, $p = 0.022$, for all thrombectomy (6x faster); and median time-to-intervention improved from 21.0 (IQR 5.0, 42.0) days to 2.5 (IQR 0.25, 4.75) days, $p = 0.010$, for thrombectomy with noticeable thrombus during diagnosis (8.4x faster). There were no statistical significant difference in baseline demographics, types of AVF/AVG, types of interventions (fistuloplasty, central venoplasty, thrombectomy, stenting), rate of intervention/month between 2 groups, complication rate, and the downtime of the fluoroscopy machine during the study period.

Conclusion:

This multi-disciplinary collaboration such as UMMC VIRGIN team has the potential to represent a promising, effective care model in improving the delivery of healthcare services for patients with dysfunction haemodialysis access.



Submission ID: A-0099
Poster Viewing

Category: Doctor
Topic: Peritoneal Dialysis

NUTRITIONAL PREDICTORS OF MORTALITY IN PREVALENT PERITONEAL DIALYSIS PATIENTS: A RETROSPECTIVE MULTICENTRE STUDY

Benny Chia Wue Lim¹, Nurul Eiman Mohd Badran¹, Marina Norman¹, Sharafina bSafiee¹, Fareeza Hawani Muhamad Fawzi¹, Muslihah Zainon¹, Hii Siew Lin², Adibah Abu Kasim³, Mohd Aizat Zulkifli⁴, Lily Mushahar¹

Department of Nephrology, Hospital Tuanku Ja'afar, Seremban, Negeri Sembilan, Malaysia
Department of Internal Medicine, Hospital Port Dickson, Port Dickson, Negeri Sembilan, Malaysia
Department of Internal Medicine, Hospital Rembau, Pedas, Negeri Sembilan, Malaysia
Department of Internal Medicine, Hospital Tuanku Ampuan Najihah, Kuala Pilah, Negeri Sembilan, Malaysia

Introduction:

Malnutrition continues to be a significant factor contributing to mortality among patients undergoing peritoneal dialysis (PD). This study aimed to assess the nutritional status of PD patients and identify the most reliable predictors of patient outcomes from a range of anthropometric and laboratory nutrition indices.

Method:

A multicenter, cross-sectional study was conducted involving all PD patients from 2021 to 2023. Inclusion criteria included being over 18 years of age and having undergone PD for at least 6 months. Survival time was recorded and analyzed using Kaplan-Meier method and Cox's regression models to explore the association with demographic factors and laboratory values.

Results:

The study included 529 PD patients, of whom 56.3% were male and 71.6% were Malay ethnicity. Among all patients, 145 (27.3%) experienced death events, and 59.3% were males. Multivariate analysis revealed Chinese (HR 1.63, $p=0.023$), Indian (HR 2.17, $p=0.001$) and Diabetes Mellitus (HR 1.69, $p=0.027$) patients exhibited a significantly higher risk of mortality. For each additional year of dialysis age increase 2% risk of mortality ($p=0.002$). Higher calcium (HR 3.12, $p=0.024$), intact parathyroid hormone (iPTH) (HR 1.003, $p<0.001$), and ferritin (HR 1.00, $p=0.001$) levels were associated with increased risk of mortality. Patients with $KT/V \geq 1.7$ had a 37% lower risk of mortality ($p=0.037$). Higher serum albumin levels (HR 0.94, $p=0.001$) and higher residual urine volume (HR 0.99, $p=0.001$) were associated with decreased risk of mortality. Survival analysis revealed that there is a difference in survival experience among ethnicity groups ($p=0.004$), primary cause of end stage kidney disease ($p<0.001$), adequately dialyse with $KT/V \geq 1.7$ ($p=0.012$), and albumin group of $\geq 35g/L$ ($p<0.001$).

Conclusion:

Our study identified several significant predictors of mortality among prevalent PD patients. Our findings underscore the importance of addressing nutritional factors in the management of PD patients to improve survival outcomes.

Submission ID: A-0100
Poster Viewing

Category: Doctor
Topic: Transplant

PUBLIC AWARENESS AND ACCEPTANCE TOWARDS KIDNEY DONATION AND TRANSPLANTATION.

Wee Leng Gan¹, Alexander Kok Yip Chow¹, Yee Yan Lee¹, Kah Mean Thong¹, Sridhar Ramanaidu¹, Chek Loong Loh¹.

¹ Nephrology Unit. Department of General Medicine. Hospital Raja Permaisuri Bainun. Ipoh. Perak. Malaysia.

Introduction:

It is estimated that the prevalence of end stage kidney disease in Malaysia will be reaching 100000 patients by 2040. Kidney transplant is the most superior form of kidney replacement therapy. We aimed to assess the public awareness and acceptance towards kidney donation and transplantation.

Methodology:

Cross sectional descriptive study was conducted among the participants attending Perak State World Kidney Day 2024 by face-to-face administered questionnaires.

Results:

The 136 respondents was recruited had a mean age of 43.7 (\pm 8.4) years old which included Malay (45.6%), Chinese (40.4%), Indian (12.5%) and other races (1.5%). Majority 97.7% of the respondents completed at least secondary education with 42.6% completing tertiary education. Only 2 respondents (1.5%) were registered as organ donors, 9.6% respondents may consider to be kidney donor and 74.3% of the respondents reported a lacking information on kidney donation and transplant. Only 3.7% respondents were aware of living related kidney transplantation and 2.2% respondents were aware of Malaysian Kidney Allocation System (MyKAS). Logistic regression showed that higher education level was associated with willingness to be kidney donor (OR 16, 95% CI: 1.6 – 148.2). However, 89% and 87.5% respondents agreed that kidney transplant improves the quality of life and the survival rate among dialysis patients. Furthermore, (89%) of respondents agree that online social media is the preferred platform to receive information on kidney donation and transplant, followed by awareness talks (9.6%) and educational pamphlets (0.7%). Lastly, 100% respondents agreed with opt-in kidney transplant policy.

Conclusion:

There appears to be a correlation between level of education and willingness of kidney donation. Despite the known benefits of kidney transplant, many are unaware of our local kidney transplant services. Social media is potentially an effective platform to engage the public to improve the awareness.



Submission ID: A-0101
Poster Viewing

Category: Doctor
Topic: Haemodialysis

CLINICAL AUDIT ON INFECTION CONTROL DURING HAEMODIALYSIS RELATED PROCEDURES AT FOUR DIALYSIS LOCATIONS IN KUALA TERENGGANU

Nurul Ain Hj YUSOF, Hajar Amalina AHMAD BUSTAMAN, Rashdan RAZLAN, Muhaida Suzana
MOHD MAKHTAR

Department of Nephrology, Hospital Sultanah Nur Zahirah, Jalan Sultan Mahmud 20400 Kuala
Terengganu, Terengganu

Infection control during haemodialysis procedures is important to prevent and reduce dissemination of infection among haemodialysis patients. Access related infection commonly via arteriovenous fistula or catheter related blood stream bacteraemia has resulted in significant morbidity, mortality and cost burden for End Stage Kidney Disease. The objectives of this study is to evaluate and to assess compliance to standard operating procedure (SOP) during haemodialysis procedures in accordance to Centre of Disease Control (CDC) 2019 checklists via clinical audit. Thirty-eight and fifty paramedics and staff nurses were involved during the first and second clinical audit done within six months apart at four dialysis locations i.e chronic Haemodialysis Unit (HDU) Hospital Sultanah Nur Zahirah, acute nephrology unit and two satellite haemodialysis i.e Haemodialysis Maras and Haemodialysis Seberang Takir, involving seven clinical auditors. The standard checklists include catheter exit site care, catheter connection and disconnection, arteriovenous fistula cannulation and decannulation as well as haemodialysis injectable medication preparation and administration. Results were collected, compared and analysed to detect percentage of nonconformity for each steps within each checklists, percentage of improvement in performances between two audits and performances of staffs at each haemodialysis locations were analysed. The overall performances for hand hygiene were suboptimal for exit site care, catheter connection/disconnection, AVF cannulation/ decannulation and injectable medication administration which however showed improvement after the second audit. Despite the busy scheduled, our acute dialysis ward achieved 100% performances for catheter exit site care, catheter connection/ disconnection and hemodialysis injectable medication preparation as compared to chronic dialysis unit. Causes of shortfalls in qualities and strategies for future implementation were discussed. In conclusion, the role of clinical audit during haemodialysis procedures is vital to identify and rectify our shortfalls and could improved quality of care and compliances towards infection control standard for haemodialysis procedures.

Submission ID: A-0102
Poster Viewing

Category: Doctor
Topic: Glomerulonephritis

PREDICTORS OF MORTALITY IN BIOPSY-PROVEN LUPUS NEPHRITIS: DISTRICT SINGLE CENTER EXPERIENCE

Chia Hui LAU¹, Jin An TEO¹, Jer Ming LOW¹

¹ Department of Internal Medicine, Hospital Sultan Haji Ahmad Shah, Temerloh, Malaysia

Introduction:

Lupus nephritis (LN), a serious manifestation of systemic lupus erythematosus can be fatal if untreated. In developed countries, the causes and predictors of mortality in LN have been well studied. However, evidence is lacking for developing countries. The objective of this study was to investigate the risk factors for mortality in a cohort of biopsy-proven LN.

Methods:

This is a retrospective analysis where all patients with biopsy-proven LN in Hospital Sultan Haji Ahmad Shah from 2015-2023 were enrolled. Defaulted patients were excluded. Demographic data, clinical features and outcomes were collected. Cox regression analysis was carried out to determine the independent risk factors for mortality.

Results:

There were 44 biopsy-proven LN available for our analysis. The mean age of our patients at first biopsy was 29.4-year-old (SD 12.1) with female (88.6%) being the predominant gender. Acute kidney injury (AKI) was evident at initial presentation in 36% of our patients. Class III±V and Class IV±V was the predominant biopsy class (n=19, 43%) respectively. Intravenous cyclophosphamide was the commonest induction agent (n=25, 56.8%). Majority of our patients achieved at least partial to complete remission at 12 months of induction (n=34, 77.3%). There were 7 deaths (15.9%). The 5 and 10-year survival rates in our cohort were 88% and 80.3%. Cox regression analysis revealed that presence of acute kidney injury at presentation (HR 5.5; CI 1.06-28.6), initiation of hemodialysis (HR 10.7, CI 2.3-49), and failure to achieve remission at 12 months (HR 31.8; CI 3.8-264) were independent predictors of mortality in our cohort, while age, gender, choice of initial immunosuppressant were not predictive of mortality.

Conclusion:

Our LN cohort's survival and remission rates were comparable to most LN studies reported and presence of AKI, hemodialysis at presentation and failure to achieve remission at 12 months were independent predictors of mortality in LN.

Submission ID: A-0103
Poster Viewing

Category: Doctor
Topic: Glomerulonephritis

COMPOSITE RENAL EVENTS IN BIOPSY PROVEN LUPUS NEPHRITIS AND RISK FACTORS ASSOCIATED WITH IT: A SINGLE CENTER EXPERIENCE IN DISTRICT

Jin An TEO¹, Chia Hui LAU¹, Jer Ming LOW¹

Introduction:

Lupus nephritis (LN) is a major cause contributing to end-stage kidney disease (ESKD). The objective of this study was to investigate the risk factors for composite renal outcome, defined as composite of $\geq 40\%$ eGFR reduction to $< 60 \text{ml/min/1.73m}^2$, ESKD or renal death.

Methods:

We retrospectively studied all patients with biopsy-proven LN treated in Hospital Sultan Haji Ahmad Shah and excluded those who defaulted. Baseline clinical characteristics and outcomes were collected. To determine the independent risk factors for composite renal outcomes, we utilize cox regression analysis.

Results:

A total of 44 cases were available for our analysis after excluding 7 due to defaults. Mean age of our patients at presentation was 29 4-year-old (SD 12.1) with female (88.6%) being the predominant gender. Acute kidney injury (AKI) and requirement of hemodialysis were evident at initial presentation in 36% and 11.4% of our patients. Patients who did not achieve remission at 1 year compared to those that achieved partial/complete remission had shorter mean duration for composite renal events (28.8 months versus 109 months, $p=0.000$). Besides that, uPCR $> 0.08 \text{g/mmol}$ at 1 year is associated with shorter time for composite renal event (73 months versus 112 months, $p=0.007$). There were total of 10 renal events (22.7%). The 5 and 10-year renal survival rates in our cohort were 82.2% and 70.4% with mean eGFR at the final follow up was 92ml/min/1.73m^2 (SD ± 37). Cox regression analysis revealed that AKI (HR 6.12, CI 1.23-30.5), initiation of dialysis (HR 9.18, CI 2.11-39.8) on presentation, and uPCR $> 0.08 \text{g/mmol}$ at 1 year (HR 10.9, CI 1.27-93.7) were independent predictors of renal events, while age, gender, C3, C4, activity and chronicity index were not predictive of composite renal outcomes.

Conclusion:

This study showed that it is important to aggressively treat and achieve remission and uPCR $< 0.08 \text{g/mmol}$ at 1 year in LN patients to ensure a higher renal survival.

Submission ID: A-0104
Poster Viewing

Category: Doctor
Topic: Peritoneal Dialysis

INCIDENCE AND CLINICAL OUTCOME OF CONTINUOUS AMBULATORY PERITONEAL DIALYSIS RELATED PERITONITIS IN HSNI, BATU PAHAT

Author : Darshini.B¹, Sze XQ¹, Hassan.Nordin¹, Sarasvaty.A¹

¹Department of Internal Medicine, Hospital Sultanah Nora Ismail Batu Pahat

Introduction:

Peritoneal Dialysis (PD) related peritonitis is the most common complication which lead patients converting into hemodialysis and patient drop out. We aim to determine demographic characteristics of our PD patients and evaluate the clinical outcomes among PD patients with peritonitis.

Methods:

A retrospective clinical data was collected from all PD patients in Hospital Sultanah Nora Ismail from January 2022 till December 2023 looking at demographic data, rate of peritonitis, risk factors of peritonitis and their outcome.

Results:

A total of 121 patients were included from January 2022 till December 2023. Among them 31 patients has been recorded having peritonitis. The mean age in this study is 51.65 ± 14.83 years. Among them 58.1% were females and majority of them were Malays ($n=22, 71\%$). In this study Diabetes Mellitus had higher rate of peritonitis compared to Hypertension ($n=24, 77.4\%$). The overall peritonitis rate was 0.25 episodes per patient-year. Most patient with peritonitis has pre-dialysis albumin level of less than 30 ($n=20, 64.5\%$) and were using type C system for dialysis ($n=14, 45.2\%$). Overweight patients tend to have higher risk of PD related peritonitis ($n=15, 48.4\%$). The mean months from catheter insertion to developing peritonitis is 6.48 ± 6.7 months. Gram negative organism was the predominant organism from the culture ($n=13, 41.9\%$) followed by culture negative ($n=11, 35.5\%$), gram positive ($n=3, 9.7\%$), fungal ($n=2, 6.5\%$) and non-tuberculous mycobacterium ($n=1, 3.2\%$). E.coli was the most common organism among the gram-negative culture. Peritoneal dialysis catheter was removed in 13 patients (41.9%) due to refractory peritonitis. Fungal and non-tuberculous mycobacterium had higher rate of catheter loss compared to other organism (100% respectively). Mortality rate in this study is low ($n=6, 19.4\%, p<0.05$).

Conclusion:

From this study we can conclude that continuous ambulatory peritoneal dialysis related peritonitis are relatively low and have high survival rate. Thus, peritoneal dialysis has proven to have favourable outcome and should always be integrated as an option for dialysis.

Submission ID: A-0105
Poster Presentation

Category: Doctor
Topic: Others : Chronic Kidney Disease

A CLINICAL AUDIT ON SCREENING AND MANAGEMENT OF DIABETIC KIDNEY DISEASE (DKD) AMONG PATIENTS WITH TYPE 2 DIABETES MELLITUS AT HOSPITAL SULTAN HAJI AHMAD SHAH TEMERLOH, MALAYSIA (HOSHAS)

Meenakshi ALAGAPPA¹, Jer Ming LOW¹, Saiful Shahrizal SHUDIM¹, Chee Keong SEE¹

¹Department of Internal Medicine, Hospital Sultan Haji Ahmad Shah

Introduction:

Diabetes mellitus is a leading cause of CKD and end-stage kidney disease (ESKD) globally, with diabetic kidney disease (DKD) responsible for the majority of cardiovascular and all-cause mortality in diabetic patients. This study assessed the screening and treatment practices for diabetic kidney disease (DKD) among patients with type 2 diabetes (T2DM) at HOSHAS.

Methods:

All patients diagnosed with T2DM attending the diabetes clinic at HOSHAS between June and August 2023 were enrolled in this clinical audit. Electronic medical records were assessed for demographic information, blood pressure, glycaemic targets, and screening and management of diabetic patients with albuminuria.

Results:

This audit comprised 242 patients, with the majority being females (59.1%). The average age of the patients was 52.3 years, and the mean estimated glomerular filtration rate (eGFR) was 71.5 mL/min/1.73 m². While the screening rate for albuminuria was notably high at 92.1%, only 30.2% of patients underwent further quantification. 37.6% of patients achieved the blood pressure target below 140/80 mm Hg, and only 25.0% met the HbA1c target of less than 7%. Among patients with eGFR \geq 20 mL/min/1.73 m² (n= 230), only 47.4% were on SGLT2 inhibitors. In the subset of patients with albuminuria (n=98), 19.4% achieved the stricter blood pressure target of below 130/80 mm Hg, and 28.7% reached the HbA1c target of \leq 7%, with 64.3% on ACEI/ARB and 46.9% prescribed SGLT2 inhibitors.

Conclusion:

This audit reveals the underutilization of RAS blockers and SGLT2 inhibitors in managing diabetic kidney disease. Addressing this therapeutic inertia among healthcare providers through enhanced education is crucial to improving the care of diabetic CKD patients.

Submission ID: A-0106
Poster Viewing

Category: Doctor
Topic: Others : Chronic Kidney Disease

FINERENONE: A SINGLE CENTRE'S EARLY EXPERIENCE WITH ITS USE IN PATIENTS WITH DIABETIC KIDNEY DISEASE

Chee Keong THYE¹, Tharsini SARVANANDAN², Jeyakantha RATNASINGAM², Soo Kun LIM¹

¹Division of Nephrology, Department of Medicine, Faculty of Medicine, University of Malaya, Kuala Lumpur, Malaysia ²Endocrine Unit, Department of Medicine, Faculty of Medicine, University of Malaya, Kuala Lumpur, Malaysia

Introduction:

Finerenone, a non-steroidal mineralocorticoid receptor antagonist (ns-MRA), together with sodium glucose cotransporter 2 inhibitors (SGLT2-i) and Renal-Angiotensin System inhibitors (RASi) are now the established treatments for patients with chronic kidney disease (CKD) and type 2 diabetes (T2D). Finerenone has been shown to retard the CKD progression in T2D. We report the early experience of using Finerenone in our centre.

Methodology:

This was a prospective, single-centre study whereby an established cohort of patients receiving Finerenone was followed up, of which four weeks of follow-up data were obtained. Recruited subjects had residual albuminuria of >300mg per day despite receiving maximally tolerated RASi and SGLT-2i except one who had recurrent urinary tract infection. All had baseline eGFR $\geq 25\text{ml/min/1.73m}^2$ (Mean eGFR of $44.42\text{ml/min/1.73m}^2$) and serum potassium of less than 5mmol/L. All were initiated on 10mg of Finerenone once daily and were advised to have an adequate fluid intake of 1.5 to 2.0 L/day. Apart from demographic information, changes in serum potassium, eGFR, and albuminuria were collected and analysed.

Results:

Data from twelve patients were presented (Mean age of 64.3 years). Malay, Chinese and Indian accounted for 25.0%, 50.0% and 25.0% of the subjects respectively. At four weeks, there was a mean increase of $0.36\pm 0.39\text{mmol/L}$ of serum potassium; with the highest being 1.30mmol/L. None experienced hyperkalemia of more than 5.5mmol/L. There was an observed dip in eGFR of $15.5\pm 8.8\%$ in this cohort with two patients experiencing a decrease of more than 20% of eGFR at four weeks. All patients had a discernible reduction in albuminuria with mean reduction of $37.1\pm 31.1\%$.

Conclusion:

In the real-world setting, Finerenone appears to be safe and demonstrates a reduction of albuminuria early after initiation, which is likely to be its haemodynamic effects. A larger sample size and a longer period of follow up are necessary to confirm these findings.



Submission ID: A-0107
Poster Viewing

Category: Doctor
Topic: Others : ADVANCED CHRONIC
KIDNEY DISEASE

PREDICTORS OF MORTALITY AND ENDOCSOPIC INTERVENTION IN SUSPECTED ACUTE GASTROINTESTINAL BLEED AMONG HOSPITALIZED PATIENTS WITH ADVANCED CHRONIC KIDNEY DISEASE

Khai Vern POON¹, Clare Hui Hong TAN²

¹Department of Medicine, Bintulu Hospital, Sarawak, Malaysia ²Department of Nephrology,
Sarawak General Hospital, Sarawak, Malaysia

Background:

Upper gastrointestinal bleeding (UGIB) is common in patients with chronic kidney disease (CKD). However, studies on the outcomes of acute UGIB in CKD patients are limited. This study aims to evaluate the clinical characteristics and identify predictors for the need for endoscopic intervention and 30-day mortality in hospitalized advanced CKD patients with suspected acute UGIB.

Methods:

This retrospective observational study was conducted at Hospital Bintulu, Sarawak. Data were collected over six years (January 2018 to January 2024) for hospitalized advanced CKD patients (eGFR ≤ 30 ml/min/1.73m²) who presented with suspected acute UGIB and underwent endoscopy. Statistical analyses included Chi-square, independent t-tests, and logistic regressions.

Results:

The study included 70 patients (13 with CKD stage IV, 29 with CKD stage V, and 28 with ESRD on dialysis), with a mean age of 56, and 52.9% were male. The majority (77.1%) were Sarawak natives. Positive OGDS findings were observed in 52 patients (74.3%), with gastritis in 27 (38.6%) and bleeding ulcers in 7 (10.0%). Eleven patients (15.7%) required endoscopic intervention, and the 30-day mortality rate was 7.1%. Factors associated with the need for endoscopic intervention included presentation with per rectal bleed ($p=0.038$), high serum urea ($p=0.036$), bleeding ulcers ($p<0.001$), and re-bleeding within 7 days ($p<0.001$). Per rectal bleeding increased the risk of bleeding ulcers by 11-fold. Patients with bleeding ulcers were 43 times more likely to require endoscopic intervention and 15 times more likely to re-bleed within 7 days. Mortality predictors included hypotension, hypokalemia, hypoalbuminemia, re-bleeding within 7 days, ICU admission, and inotrope requirement, with re-bleeding being the strongest predictor (34-fold increase).

Conclusion:

Bleeding ulcers and re-bleeding within 7 days are significant factors associated with endoscopic intervention and mortality in advanced CKD patients with suspected acute UGIB. Patients presented with per rectal bleed were more likely to have bleeding ulcers.



Submission ID: A-0108
Poster Viewing

Category: Doctor
Topic: Others : ADVANCED CHRONIC
KIDNEY DISEASE

INITIATION OF RENIN-ANGIOTENSIN SYSTEM (RAS) BLOCKADE IN RAS BLOCKADE NAIVE ADVANCED CHRONIC KIDNEY DISEASE PATIENTS: PRELIMINARY DATA ON A LONGITUDINAL STUDY IN HOSPITAL BINTULU, SARAWAK

Khai Vern POON¹, Wen Jie LAU¹, Be Jinn LAI¹, Clare Hui Hong TAN²

¹Department of Medicine, Bintulu Hospital, Sarawak, Malaysia ²Department of Nephrology, Sarawak General Hospital, Sarawak, Malaysia

Background:

Delaying the progression of chronic kidney disease (CKD) is a key focus in CKD management. While newer medications such as SGLT-2 inhibitors and non-steroidal MRAs have emerged, RAS blockade remains a fundamental approach. However, the benefits of RAS blockade in advanced CKD stages IV and V are uncertain, with higher risks such as hyperkalemia. This study aims to observe the short-term effects of initiating RAS blockade in advanced CKD patients who were not previously on this therapy.

Methods:

This longitudinal study was conducted at Hospital Bintulu, Sarawak. Data were collected from patients with CKD stages IV and V who were not previously on RAS blockade. Laboratory parameters were measured 2-4 weeks after initiating RAS blockade. Paired t-tests were used to compare pre- and post-initiation values.

Results:

Seventeen patients (10 with CKD stage IV, 7 with CKD stage V) were included, with a mean age of 58 and a male predominance (64.7%). The mean eGFR was 16 ml/min/1.73m². The majority were Sarawak natives (70.6%) with comorbidities of diabetes (76.5%) and hypertension (88.2%). Mean systolic BP was 148 ± 19 mmHg before treatment and 152 ± 31 mmHg after treatment. Serum potassium increased by a mean of 0.1 mmol/L (p=0.60) following RAS blockade. A mean reduction in eGFR of 0.5 ml/min/1.73m² (p=0.50) was observed, and proteinuria decreased by 0.1 g/L (p=0.93). RAS blockade was withheld in one patient due to persistent hyperkalemia.

Conclusion:

Preliminary results indicate that the initiation of RAS blockade in advanced CKD patients does not result in significant short-term side effects. Further follow-up is required to assess the mid-to-long-term effects of RAS blockade.

Submission ID: A-0110
Poster Viewing

Category: Doctor
Topic: Haemodialysis

CLINICAL ASSESSMENT AND OUTCOME OF THE ARTERIOVENOUS FISTULA (AVF) OUTSOURCING PROGRAM IN KELANTAN

Sharifah Nursamihah SYED ABD RAHMAN¹, Wan Mohd Khairul Wan ZAINUDIN¹, Siti Romaino MOHD NOR², Wan Hasnul Halimi WAN HASSAN^{1,2}

¹Nephrology Department, Hospital Raja Perempuan Zainab II, Kelantan, Malaysia, Ministry of Health.

²Clinical Research Centre (CRC) Kelantan, Hospital Raja Perempuan Zainab II, Kelantan, Malaysia, Ministry of Health.

Introduction:

Arteriovenous fistula (AVF) is the preferred vascular access for effective haemodialysis. An outsourcing program whereby public patients are sent to private centres for AVF creation. Therefore, our objective was to describe the sociodemographics among patients referred for an outsourcing program, determine the prevalence of successful AVF and determine the waiting time for AVF.

Method:

This is a cross-sectional study, including all AVF patients. The data were collected from 1st June to 31st December 2022 from all involved hospitals in Kelantan. Descriptive analysis was performed using SPSS version 26.

Results:

Over the study period, there were 175 patients; 53.1% males and 95.4% Malays. Their mean age (SD) is 53.8 (14.3) years. The AVF creation was done at 3 private centres; 74 from Centre-A, 73 from Centre-B and 28 from Centre-C. There were 145 (83%) patients who were first-time AVF creations and 30 (17%) cases of AVF created after a previous fistula failed. The type of fistula created were 85 (49%) Radio-Cephalic Fistula, 69 (39%) Brachio-Cephalic Fistula and 21 (12%) Brachio-Basilic Fistula. The majority of comorbidities are Diabetes Mellitus (69.1%), Hypertension (89.7%), Hiperlipidaemia (61.7%), Ischemic Heart Disease (13.1%) and Cerebro Vascular Accident (9.1%). The prevalence of successful AVF creation was 56% (98). The median (IQR) time of referral to creation is 28.5 (30) days, creation to the first puncture is 68 (54) days and referral to the first puncture is 104 (64) days, respectively. A total of 60 (34%) patients had complications including 31 (38%) primary failure, 6 (3.4%) stenosis, 5 (2.9%) hematoma, 3 (1.7%) thrombosis, 2 (1.1%) aneurysm, 1 (0.6%) steal syndrome and 12 (6.9%) others. Meanwhile, 17 (9.7%) cases passed away before cannulation.

Conclusion:

This study can be used as a baseline to assess the accuracy of clinical assessment in identifying suitable vessels for AVF creation compared to others.

Submission ID: A-0111
Poster Viewing

Category: Doctor
Topic: Haemodialysis

ASSOCIATED FACTORS FOR SUCCESSFUL ARTERIOVENOUS FISTULA (AVF) OUTSOURCING PROGRAMME IN KELANTAN

Sharifah Nursamihah SYED ABD RAHMAN¹, Wan Mohd Khairul Wan ZAINUDIN¹, Siti Romaino MOHD NOR², Wan Hasnul Halimi WAN HASSAN^{1,2}

¹Nephrology Department, Hospital Raja Perempuan Zainab II, Kelantan, Malaysia, Ministry of Health.

²Clinical Research Centre (CRC) Kelantan, Hospital Raja Perempuan Zainab II, Kelantan, Malaysia, Ministry of Health.

Introduction:

Arteriovenous fistula (AVF) is the most preferred vascular access for hemodialysis. However, some of the patients required hemodialysis using a catheter while waiting for AVF creation, which catheters are associated with multiple complications. Hence, we conducted a study to assess the associated factors for successful AVF creation under an outsourcing programme in Kelantan.

Methodology:

A cross-sectional study, including all patients who underwent AVF creation under the outsourcing programme in Kelantan from 1st June 2022 until 31st December 2022. Medical records were reviewed, and data was extracted based on inclusion and exclusion criteria. Data were analysed using SPSS version 26. Prevalence was presented with percentage (%) and inferential statistics were performed using Pearson Chi-square. The level of significant alpha was set at 0.05.

Results:

A total of 175 patients underwent AVF creation under an outsourcing programme during this study period. AVF creation was done at 3 private centers with 145 (83%) of patients having the first-time of AVF creation while 30 (17%) cases of AVF created after a previous fistula failed. The success of AVF creation was 98 (56%) cases while 77 (44%) cases failed. Sixty (34%) of patients had complications and 17 (9.7%) cases passed away before cannulation. Univariate analysis shows that younger age (51.8 vs 56.4, $P = 0.032$), presence of hyperlipidemia ($P = 0.042$) and center of AVF creation (54.1 vs 49.3 vs 78.6, $P = 0.027$) were significantly associated with successful AVF creation.

Conclusion:

The significant associated factors for successful AVF are age, hyperlipidemia, and the center of AVF creation. Therefore, a comprehensive understanding of the factors influencing AVF success is essential for advancing patient care, improving clinical outcomes, and reducing the burden of vascular access-related complications in individuals requiring haemodialysis.

Submission ID: A-0113
Poster Viewing

Category: Doctor
Topic: Haemodialysis

DEMOGRAPHIC DETAILS AND OUTCOMES OF CONTINUOUS RENAL REPLACEMENT THERAPY (CRRT) IN INTENSIVE CARE UNIT (ICU) IN DISTRICT HOSPITAL

¹Suguna ELENGOE, ¹Atiqah AYUB, ²Sze Xun QUAN, ¹Noor Hidayah YAHYA

¹Medical department, Hospital Enche' Besar Hajjah Khalsom, Kluang, Johor, Malaysia

²Nephrology Unit, Hospital Sultanah Nora Ismail, Batu Pahat, Johor, Malaysia

Introduction:

CRRT is an artificial renal supportive treatment in hemodynamically unstable patients in ICU. It provides continuous blood purification while maintaining fluid and electrolyte balance.

Methodology:

This is a retrospective observational study involving 27 patients aged more than 18 years old who were admitted to ICU requiring CRRT in the year 2023. Their demographic and clinical characteristics were analysed in predicting mortality and morbidity outcomes.

Results:

All our patients were intubated and requiring inotropes support where 48.1% were on double inotropes. Male was predominant (74.1%) with a mean age of 56 ± 13.8 years. Majority was Malay ethnicity (63.0%) followed by Chinese (25.9%) and Indian (7.4%). 59.3% of patients had Charlson Comorbid Index ≥ 3 . These patients required CRRT due to acute kidney injury (AKI) precipitated by septic shock (74.1%) followed by cardiogenic shock (7.4%). The median duration of hospitalisation was 14 (7-32) days with a mean ICU stay of 13 ± 10 days. The mean filter life span without heparin usage was 38.6 ± 26.2 hours while with heparin 63.5 ± 58.9 hours. 21 patients succumbed during hospitalization; one third of them (33.3%) died within 7 days of admission. 30 days mortality outcome was 62.9% (n=17) while 90 days outcome 77.8% (n=21). Six patients were successfully discharged with no renal recovery and required long term renal replacement therapy.

Conclusions:

In conclusion it is evident that our critically ill patients in ICU requiring CRRT had high mortality and morbidity rate. These findings suggest that requirement of CRRT is significant prognostic marker for poorer outcome. This will be helpful for treating physician in breaking the bad news to family and managing expectations in terms of futility of treatment and suggest a time limited therapy in those instances.

Submission ID: A-0114
Poster Viewing

Category: Doctor
Topic: Mineral Bone Disease

BROWN TUMOUR OF THE MANDIBLE: A RARE MANIFESTATION OF TERTIARY HYPERPARATHYROIDISM

Wen Jie LAU¹, Be Jinn LAI¹, Khai Vern POON¹, Nurshaline Pauline KIPLI², Clare Hui Hong TAN³

¹Department of Medicine, Bintulu Hospital, Sarawak, Malaysia

²Oral Pathology & Oral Medicine Unit, Sarawak General Hospital, Sarawak, Malaysia ³Department of Nephrology, Sarawak General Hospital, Sarawak, Malaysia

Introduction:

Brown tumour is a non-cancerous bony lesion that represents the terminal bone remodelling process resulting from uncontrolled hyperparathyroidism. It can manifest as singular or multiple lesions predominantly in long bones, pelvis, ribs, and clavicles. Facial involvement is uncommon (<5%), but when present, it mainly affects the mandible.

Case summary:

A 32-year-old lady with underlying hypertension and end-stage kidney failure on regular haemodialysis since 2014, presented with progressive painless jaw swelling. She had history of hyperparathyroidism since 2018 and was planned for total parathyroidectomy in 2019. However, the operation was cancelled after an echocardiogram showed severe dilated cardiomyopathy with EF of 19%, and normal coronary angiogram. She was started on Cinacalcet since 2019 and the parathyroid hormone (PTH) level gradually reduced from 270pmol/L to 91pmol/L by 2023. However, the ALP remained high (>1000U/L) throughout the years. She also had pathological fractures in both femoral necks, requiring bilateral total hip replacements in 2020. The jaw swelling started in 2019 without facial numbness. Clinical examination showed a diffuse swelling (5cmx6cm) in the mandibular region that felt hard with no overlying skin or temperature changes. No lymphadenopathies were noted. A biopsy of the mucosal swelling showed hypercellular fibroblastic stroma containing numerous irregular woven bones with osteoblastic rimming and aggregates of osteoclastic giant cells, in keeping with cemento-ossifying fibroma. These findings support the diagnosis of brown tumour due to tertiary hyperparathyroidism. In November 2023, she successfully underwent total parathyroidectomy and HPE revealed parathyroid hyperplasia in all PTH glands. The mandibular swelling progressively reduced in size afterwards and the latest measurement was 3cmx4cm. Latest PTH level in April 2024 was 0.5pmol/L.

Conclusion:

We report a rare case of mandibular brown tumour in a patient with severe tertiary hyperparathyroidism which progressively enlarged despite Cinacalcet therapy and improvement of PTH level, but eventually regressed post total parathyroidectomy.



Submission ID: A-0117
Poster Presentation

Category: Doctor
Topic: Others : Diabetic Nephropathy

THE BANE OF NEPHROLOGY: DIABETIC NEPHROPATHY (DN). CHARACTERISTICS, OUTCOME AND PROGNOSTIC FACTORS. A SINGLE CENTRE EXPERIENCE

Joel Guan Hui YAP ¹, Boon Cheak BEE ¹, Devamalar SIMATHERAI ¹

1. Department of Nephrology, Hospital Selayang, Ministry of Health, Malaysia

Introduction:

DN remains the leading cause of ESKD worldwide. We aim to evaluate the characteristics, outcome and prognostic factors in biopsy-proven DN

Methods:

Electronic Medical Records were evaluated and analysed using descriptive statistics, chi-squared test and bivariate logistic regression (SPSS v26).

Results:

A total of 345 native kidney biopsies were performed from January 2021 - March 2024 in Hospital Selayang, of which 75 (22%) were DN. Of this DN cohort, median age was 47 years, DM duration was 10 years and 56% male. There were 56% on ACEi/ARB and only 5.4% on SGLT2-inhibitors. Proliferative diabetic retinopathy (PDR) was present in 61%, non-proliferative in 28% and 11% no retinopathy. Median proteinuria was 6.4g/day (IQR: 2.7–9.4g/day) and HbA1c was 6.8% (IQR: 6.2–8.4%). Median creatinine at biopsy was 314 μmol/L (IQR: 198–446 μmol/L) and eGFR was 19 mL/min/1.73m² (IQR: 12–32). Histopathological examination revealed 87% had Kimmelstiel-Wilson nodules, 75% capillary thickening, 33% fibrin caps, 20% microaneurysms, 15% extracapillary proliferation and 1% had concurrent glomerulonephritis. Median global sclerosis (GS) was 50% (IQR: 33–68%) and IFTA 50% (IQR: 40–70%). Arterial thickening was present in 92% and arteriolar hyalinosis in 96%. Immunofluorescence showed linear IgG staining in 77%. Tervaert scoring was II in 5%, III in 42% and IV in 53%. Overall, 64% developed ESKD (81% HD, 19% PD) at a mean of 5.6 months ± 5.2 months post-biopsy. The cohort was grouped into two; those with eGFR decline < 20 mL/min/1.73m²/year and those with faster decline ≥ 20 mL/min/1.73m²/year. Poor prognostic factors significantly associated with faster decline group was PDR (p=0.029), creatinine > 300 μmol/L (p=0.008), eGFR < 30 mL/min/1.73m² (p=0.034), proteinuria of > 8g/day (p=0.021), HbA1c > 10% (p=0.033), GS ≥ 50% (p=0.05) and IFTA ≥ 50% (p=0.008), all taken at time of biopsy. Having proteinuria > 8g/day, eGFR < 30 mL/min/1.73m² at biopsy, GS ≥ 50% and IFTA ≥ 50% was associated with an Odds Ratio of 6.2, 4.5, 2.8 and 5.5 respectively, to develop eGFR decline ≥ 20 mL/min/1.73m²/year. When the cohort with no diabetic retinopathy was analysed, median proteinuria, creatinine and eGFR was better at 4.2g/day, 185 μmol/L and 30 mL/min/1.73m² respectively. None of this cohort developed ESKD, however the sample size was limited.

Conclusion:

DN can progress rapidly whereby retardation is of utmost importance. This includes optimum glycaemic and BP control with the addition of SGLT2-inhibitors which seems to be underutilised.

Submission ID: A-0120
Poster Viewing

Category: Doctor
Topic: Haemodialysis

BODY COMPOSITION AND NUTRITIONAL STATUS AS RISK FACTORS OF HEMODIALYSIS INADEQUACY AMONG PATIENTS WITH END-STAGE RENAL DISEASE AT DR.SARDJITO HOSPITAL, INDONESIA

Siti Nur Rohmah¹ *, Metalia Puspitasari², Heru Prasanto², Yulia Wardhani², Iri Kuswadi², Andika Dhamarjati³

¹Fellow student of Nephrology and Hypertension Division, Department of Internal Medicine, Faculty of Medicine, Public Health and Nursing Gadjah Mada University / Dr Sardjito General Hospital, Yogyakarta, Indonesia

²Nephrology and Hypertension Division, Department of Internal Medicine, Faculty of Medicine, Public Health and Nursing Gadjah Mada University / Dr Sardjito General Hospital, Yogyakarta, Indonesia ³Department of Internal Medicine, Faculty of Medicine, Public Health and Nursing Gadjah Mada University, Yogyakarta, Indonesia

Introduction:

The prevalence of long-term dialysis continues to increase throughout the world. However, based on the Annual Report of the Indonesia Renal Registry in 2020, routine hemodialysis (HD) patients who can meet the Kt/V targets only 14%. This study aims to determine the risk factors of HD inadequacy in End-Stage Renal Disease (ESRD) patients.

Methods:

A cross-sectional study was used on 41 ESRD patients aged ≥ 18 years who underwent routine HD twice a week at Dr Sardjito Hospital in July 2023. The cut-off value of Kt/V was 1,8. Body composition measurements were assessed using bioimpedance analysis.

Results:

The HD inadequacy (Kt/V<1.8) subjects were dominated by males, the mean body mass index (BMI) was 25.35 ± 4.02 kg/m², and had higher fat mass index ($p<0,05$). Two risk prediction models were obtained by multivariate analysis. In the first model, BMI ≥ 22.9 kg/m² and every 1 mg/dL increase in serum creatinine will increase the risk of HD inadequacy by 8.853 times (OR 8.553, 95% CI 1.799–40.662), $p=0.007$) and 1.294 times (OR 1.294, 95% CI 1.002-1.670, $p=0.048$), respectively. In the second model, urea-creatinine ratio (UCR) ≤ 6.02 and every increase in the fat mass index of 1 kg/m² would increase the risk of HD inadequacy by 7.29 times (OR 7.290, 95% CI 1.100-48.305, $p=0.040$) and 12.14 times (OR 12.14, 95% CI 1.695-86.960, $p=0.015$), respectively. The first and second models could strongly predict HD inadequacy with AUCs of 80.4% (95% CI [0.668-0.939]) and 88.8% (95% CI [0.782-0.995]), respectively.

Conclusions:

The BMI ≥ 22.9 kg/m², UCR ≤ 6.02 , increased serum creatinine, and fat mass index significantly increase the risk of HD inadequacy in routine HD patients twice a week. Dialysis adequacy can be achieved by improving the nutritional status of ESRD patients, especially in limited-resourced countries with twice-a-week HD facilities.



Submission ID: A-0121
Poster Viewing

Category: Doctor
Topic: Haemodialysis

HYPEREOSINOPHILIC SYNDROME PRESENTING AS DIALYSER REACTION : A GREAT MIMICS

Yusra HASHIM¹, Nur Ezzaty Mohammad KAZMIN², Kuan Yee LIM^{1,3}, Muhammad Yusuf ABU SHAMSI³, Lydia KAMARUZAMAN^{1,3}, Rozita MOHD^{1,3}

¹Department of Medicine, Faculty of Medicine, Universiti Kebangsaan Malaysia, Kuala Lumpur, Malaysia ²Department of Medicine, Faculty of Medicine, Universiti Sains Islam Malaysia, Kuala Lumpur, Malaysia ³Department of Medicine, Hospital Canselor Tuanku Muhriz, Kuala Lumpur, Malaysia

Introduction:

Hypereosinophilic syndrome is a rare disorder characterized by hypereosinophilia defined as absolute eosinophil count (AEC) $>1.5 \times 10^9/L$. The causes can be due to eosinophilic neoplasm, secondary to drug hypersensitivity reactions, and helminth infections or idiopathic. Symptoms are non-specific include pruritus, flushing, rashes, angioedema or shortness of breath. Among haemodialysis patients, this has been documented to cause haemodialysis intolerance. Methods: We report a case of idiopathic hypereosinophilic syndrome presented with recurrent intradialytic hypotension mimicking dialyser reaction.

Results:

A 51-year-old woman ESRD secondary to diabetic kidney disease on regular haemodialysis for the past 1 month using polyethersulfone dialyzer presented with hypotension 10 minutes into dialysis. Physical examination revealed generalized pruritic erythematous skin rash which started for a week. Blood investigations showed significantly elevated eosinophil count of $18.4 \times 10^9/L$. She was treated for acute endogenous eczema with topical steroids which led to resolution of her skin rashes. Initial investigations had ruled out primary and secondary causes of hyperosinophilia. However the eosinophil count were persistently elevated ranging from $14.1 \times 10^9/L$ to $18.4 \times 10^9/L$. We improvised dialysis modality (SLEDD and CVVHD) using multiple types of dialyser including polysulfone membrane (FX 1.4), polyeryethersulfone and polyvinylpyrrolidone blend (Theranova 400) and copolymer of acrylonitrile and sodium methallyl sulfonate (AN69), but unfortunately patient persistently experienced hypotension and hot flushing 5-10 minutes into each dialysis session. Eventually she was treated with oral prednisolone of 1 mg/kg for idiopathic hyperosinophilic syndrome which dramatically reduced her eosinophil count to a normal range. Trial of haemodialysis two days later with polyethersulfone dialyzer was uneventful. She was discharged with a tapering dose of prednisolone and was able to tolerate haemodialysis without rebound eosinophil counts 3 months following discharge.

Conclusion:

Idiopathic hypereosinophilic syndrome may cause hemodialysis intolerance mimicking dialyser reactions. Prompt diagnosis and initiation of corticosteroids therapy have shown remarkable improvement in patient symptoms.



Submission ID: A-0123
Oral Presentation

Category: Paramedic
Topic: Haemodialysis

OUTPATIENT PARENTERAL ANTIMICROBIAL THERAPY IN HEMODIALYSIS (OPAT-HD) PATIENTS: THE EXPERIENCE, PRACTICES AND OUTCOMES IN TERTIARY HEALTHCARE CENTER

Retha Rajah¹, Ng Shi Yin¹, Khor Wei Ping¹, Teoh Guik Lee², Anita Bhajan Manocha²

¹ Departement of Pharmacy, Hospital Seberang Jaya, Penang, Malaysia

² Nephrology Unit, Department of Internal Medicine, Hospital Seberang Jaya, Penang, Malaysia

Background:

Outpatient parenteral antimicrobial therapy (OPAT) service is relatively new in Malaysia. The service was introduced in hospital discharge hemodialysis patients in Hospital Seberang Jaya (HSJ) in the middle of 2022.

Aim:

The primary objective of this study is to report on the experiences and practices of outpatient parenteral antimicrobial therapy in hemodialysis (OPAT-HD) patients in HSJ, and the second objective is to reflect on the clinical and cost outcomes of the service.

Methods:

We retrospectively reviewed patients' data in OPAT-HD over 12 months between January 2023 to December 2023. The patients were adult HD patients who were stable and extended hospitalization mainly due to the ongoing parenteral antibiotic/s. These patients were assessed for suitability for OPAT-HD by a healthcare team consisting of a nephrologist, specialist, medical officer, pharmacist, and nurse. Data were compiled on patient demographics, parenteral antimicrobial therapy, clinical outcomes including readmission after 30 days of discharge or complication related to the antimicrobial therapy, and resource utilization.

Results:

Thirty-four patients (mean age of 56.8 years) were discharged and provided OPAT-HD service, with 103 doses of parenteral antibiotic therapy. *Staphylococcus aureus* (MSSA) was the most frequently (35.2%) isolated organism, with cefazolin (58.8%) being the most common parenteral antimicrobial used for single or combination therapy. OPAT-HD leads to the avoidance of 154 planned inpatient admission days with an estimated cost saving of MYR 13,860 (USD 2950) for hospitalization and MYR 15,990 (USD 3403) for dialysis sessions (from the institutional perspective). A total of 11 (32.3 %) patients were readmitted within 30 days after the previous discharge, and only one case was due to catheter-related infection.

Conclusions:

The study highlighted the experience of OPAT-HD in a tertiary hospital, and the findings suggest that OPAT-HD service optimized hospital bed availability and cost-saving without compromising the continuation of the parenteral antimicrobials.

Submission ID: A-0124
Oral Presentation

Category: Doctor
Topic: Others : Chronic Kidney Disease

THE ASSOCIATION OF CARDIORENAL PROTECTIVE MEDICATIONS AND THE OUTCOME OF DIABETIC KIDNEY DISEASE: REAL-WORLD EVIDENCE FROM THE SINGHEALTH DIABETES REGISTRY

Zhong Hong Liew^{1,4,6}, Gek Hsiang Lim², Jia Liang Kwek^{1,4}, Jason Chon Jun Choo^{1,4}, Yong Mong Bee^{1,4}, Ngiap Chuan Tan³, Chieh Suai Tan^{1,4}, Angela Yee-Moon Wang^{1,4}, Kaumudi Joshipura^{5,6}

- ¹. Department of Renal Medicine, Singapore General Hospital,
- ². Health Services Research Unit, Singapore General Hospital, Singapore,
- ³. SingHealth Polyclinics, Singapore
- ⁴. Duke-NUS Medical School, Singapore
- ⁵. School of Public Health, Ahmedabad University, India
- ⁶. Harvard T.H. Chan School of Public Health, Harvard University, Boston, MA, USA

Introduction:

The prevalence of chronic kidney disease (CKD) and end-stage kidney disease (ESKD) due to diabetic kidney disease (DKD) continues to skyrocket. Renin-angiotensin-system inhibitors (RASi), sodium-glucose cotransporter-2 inhibitors (SGLT2i) and mineralocorticoid receptor antagonists (MRA) are considered guideline-directed medical therapy (GDMT), based on large randomized trials (RCTs). We aimed to evaluate real-world evidence of combined use of GDMT in relation to kidney outcomes in a multiethnic Asian population.

Methods:

In this retrospective cohort study using SingHealth Diabetes Registry, we recruited all adults diagnosed with type 2 diabetes mellitus prescribed with at least one of the 3 GDMT, and evaluated composite kidney outcomes (defined as decline in estimated glomerular filtration rate (eGFR) \geq 50%, ESKD or all-cause mortality) in relation to use of 1 versus any 2 or 3 of GDMT between 2013 to 2023. By treating exposure duration as a time-varying variable, we examined the relationships between number of GDMT and kidney outcomes via Cox proportional hazard analysis.

Results:

Out of total 7976 participants, 7314, 639 and 23 were on 1, 2 and 3 GDMT, respectively. Mean age was 58.7 (\pm 12.5) years old, with 49.0% aged \geq 65 years old and 55.3% were men. All MRA prescribed were steroidal type. In multivariate model, 3-medication group and 2-medication group had hazard ratios (HR) of 0.83 (95%CI:0.33-2.06, $p=0.69$) and 0.78 (95%CI:0.60-1.02, $p=0.07$) respectively for renal outcomes, compared with 1-medication group. Those prescribed any 2 medications with either RASi/MRA or RASi/SGLT2i had HR 1.72 (95%CI:1.17-2.54, $p=0.006$) and 0.38 (95%CI:0.25-0.59, $p<0.001$), respectively, compared with RASi. MRA when used alone, had HR 1.98 (95%CI:1.46-2.68, $p<0.001$), compared with RASi. Similar results were observed in subgroup analyses that included those with A2 or A3 albuminuria (UACR \geq 30mg/day).

Conclusion:

The real-world data confirms benefits of combined RASi and SGLT2-I in kidney protection. The safety and efficacy of steroidal MRA in DKD warrant further evaluation in RCTs.



Submission ID: A-0125
Oral Presentation

Category: Doctor
Topic: Others : Chronic Kidney Disease

THE PERFORMANCE OF THREE CREATININE-BASED EQUATIONS IN PREDICTING ALL-CAUSE MORTALITY AND CARDIOVASCULAR EVENTS IN A MULTIETHNIC ASIAN POPULATION: THE SINGAPORE EPIDEMIOLOGY OF EYE DISEASES STUDY

Liew Zhong Hong¹, Chee Miao Li², Cheng Ching-Yu^{2,3}, Lim Ciwei Cynthia¹,
Sabanayagam Charumathi^{2,3}

¹. Department of Renal Medicine, Singapore General Hospital

². Singapore Eye Research Institute, Singapore National Eye Center, Singapore,

³. Ophthalmology and Visual Sciences Academic Clinical Program, Duke-NUS Medical School, Singapore

Introduction:

Novel creatinine-based equations have been proposed over recent years for chronic kidney disease (CKD) evaluation, but the comparative prediction of novel creatinine-based equations for all-cause mortality and cardiovascular events is not well established. We aimed to compare risk prediction for all-cause mortality and cardiovascular events by estimated glomerular filtration rate (eGFR) using CKD-EPI creatinine equation 2009 (Creat-ASR 2009), CKD-EPI creatinine equation 2021 (Creat-AS 2021) and CKD-EPI creatinine-cystatin equation (Creat-cys2021) in a multiethnic Asian population.

Methods:

In this population-based cohort study, we included Chinese and Indian adults aged 40-80 years who attended baseline visit (2007-2011). Serum cystatin C was measured using particle-enhanced turbidimetric assay. Information on death and cardiovascular events was obtained by data linkage with National Registry of Diseases Office until 31Mar2021. Outcomes were all-cause mortality and incident cardiovascular events among those without prior cardiovascular disease. Using Cox proportional hazards model, we conducted multivariate analyses to evaluate association of CKD and outcomes. Net reclassification improvement was performed to compare prediction performance of these 3 equations.

Results:

During mean follow-up of 11.3±2.2 years, all-cause mortality rate was 12.9%(743 of 5738 participants). When using Creat-ASR 2009, Creat-AS 2021 and Creat-cys 2021, mortality rates among those with CKD(eGFR<60 ml/min/1.73m²) were 6.67% vs 5.04%(P<0.001) vs 6.26%(P<0.001), respectively. After excluding those with existing cardiovascular disease, incident cardiovascular event rate was 9.9%(508 of 5120 participants). Reclassification using Creat-AS 2021 compared with Creat-ASR 2009 had poorer prediction performance for all-cause mortality and cardiovascular event (Creat-AS 2021 vs Creat-ASR 2009:NRI=-0.040,p<0.001 and -0.050,p<0.001, respectively). Reclassification using Creat-cys 2021 compared with Creat-ASR 2009 allowed better prediction for all-cause mortality and cardiovascular event (Creat-cys 2021 vs Creat-ASR 2009:NRI=0.077,p<0.001 and 0.091,p<0.001, respectively).

Conclusion:

Creat-cys 2021 was associated with improved risk prediction of all-cause mortality and incident cardiovascular event for those with and without event, compared with Creat-ASR 2009 and Creat-AS 2021.

Submission ID: A-0127
Poster Viewing

Category: Doctor
Topic: Peritoneal Dialysis

IS INCREMENTAL PD STILL SUITABLE FOR PATIENTS WHO HAD BEEN ON PRIOR TEMPORARY HAEMODIALYSIS? A RETROSPECTIVE CASE COHORT ANALYSIS.

Agni N.K.S¹, Zulfadli H.I.², Uvanesan K.¹, Subasni G.¹, Siti F.K¹, Asiah U.¹, Lily Mushahar¹

¹Department of Nephrology, Hospital Tuanku Ja'afar Seremban (HTJS)

²Sector for Biostatistics & Data Repository, National Institutes of Health

Introduction:

Incremental peritoneal dialysis (PD) is proven KRT modality. Some patients will require temporary haemodialysis prior to PD initiation.

Method:

A retrospective cohort study of patients with incremental PD prescription from year 2021-2022. Data collected from time of PD initiation to two years. **Group 1:** temporary HD for < 2 month and **group 2:** temporary HD \geq 2 month prior to PD initiation. Demographic data, mean residual renal function (RRF), ultrafiltration (UF), weekly Kt/V, mean residual renal creatinine clearance, overhydration index (OHi) from BCM, technique survival, time to peritonitis, time to 1st hospitalisation and number of hospitalisations were analysed. Independent t-test and Mann-Whitney U test were used as statistical analysis.

Results:

A total of 43 patients on incremental PD since 2021 with at least 2 years follow up were recruited. Majority of patients were male (60.9%) and diabetic (62.8%) with a mean age of 53.05 years old (\pm 14.21). Median time of temporary HD in group 1 was 1 month (0-2) and group 2 was 3 months (2-8). Main reason for patients' needing temporary HD was unplanned KRT initiation, poor flow requiring revision and newly diagnosed hernia needing repair. Mean residual renal creatinine clearance was statistically significant between the 2 groups. Group 1 had mean residual renal creatinine clearance of 39.09 L/week/1.73m² (\pm 22.65) vs 23.33 L/week/1.73m² (\pm 21.36) in group 2, ($p < 0.05$). Mean RRF, UF, weekly Kt/V, OHi, technique survival, time to peritonitis, time to 1st hospitalisation and number of hospitalisations were not significant between the 2 groups. Time to full dose PD prescription was 8.12 months (\pm 10.67) among those who had to increase their dialysis during the follow-up period.

Conclusion:

Incremental PD prescription is still possible for patients who had been on haemodialysis for more than 2 months but there is a reduction in residual renal creatinine clearance.

Submission ID: A-0128
Poster Viewing

Category: Doctor
Topic: Haemodialysis

OUTCOME OF THROMBOLYTIC THERAPY AMONG HAEMODIALYSIS PATIENTS WITH TUNNELLED CENTRAL VENOUS CATHETER DYSFUNCTION IN A TERTIARY HOSPITAL IN MALAYSIA

Kee Cheong Wong¹, Clare Hui Hong Tan¹

¹Nephrology Unit, Department of Medicine, Sarawak General Hospital, Malaysia

Introduction:

Tunnelled central venous catheter (CVC) is used increasingly for haemodialysis (HD) but commonly complicated with poor flow leading to interruption with HD. Utilizing thrombolytic therapy in managing this remains an important strategy to ensure adequate dialysis and prolong catheter function.

Methods:

All HD patients from Kuching, Sarawak with tunnelled CVCs requiring thrombolytic locks for catheter dysfunction from September 2022 till August 2023 were analysed. Patients' demography, HD access history and outcomes of the thrombolytic lock were reviewed.

Results:

Data on 72 episodes of thrombolytic locks were included in our analysis. Majority were female (59.7%) with median age of 59 years old and Malay by ethnicity (50%). Most reported comorbidities were hypertension (81.9%) and diabetes mellitus (54.2%). Median HD vintage was 60 months. Most patients had history of arteriovenous fistula creation (80.6%). Most tunnelled CVCs were via right internal jugular vein (79.2%). Urokinase was the most common thrombolytic agent used (50%), followed by alteplase (45.8%) and tenecteplase (4.2%). Majority of patients did not require repeated thrombolytic lock (58.3%) or change of catheter (83.3%) within 3 months. Among those who needed repeated thrombolytic therapy, 83.4% received up to 2 more thrombolytic locks within 3 months of catheter dysfunction and most (86.7%) did not require catheter change. Of those who failed thrombolytic therapy necessitating change of catheter, all of them required at least 3 thrombolytic locks in the first 3 months of catheter dysfunction. We did not find any statistically significant differences between different thrombolytic agents and subsequent need for repeat lock or catheter change.

Conclusion:

Thrombolytic locks are useful to maintain catheter function. Majority of our patients only needed one lock to improve catheter flow. More than 80% of patients did not require change of tunnelled CVC with the lock. Urokinase and Alteplase were equally effective in our study.



Submission ID: A-0129
Poster Viewing

Category: Doctor
Topic: Haemodialysis

ASSOCIATIVE FACTORS AFFECTING OUTCOMES OF PATIENTS WHO RECEIVED CONTINUOUS KIDNEY REPLACEMENT THERAPY: A RETROSPECTIVE OBSERVATIONAL STUDY

Shu Mian NG¹, Kuan Yee LIM^{1,2}, Ruslinda MUSTAFAR^{1,2}

¹Department of Medicine, Faculty of Medicine, Universiti Kebangsaan Malaysia, Malaysia

²Department of Medicine, Hospital Canselor Tuanku Muhriz, Malaysia

Introduction:

Kidney replacement therapy is a treatment to replace the waste filtering functions of a normal kidney. It is prescribed urgently in patients with acute kidney injury or as a long-term therapy in those with end-stage kidney disease. Continuous kidney replacement therapy (CKRT) is used in critically ill patients as it can provide a better haemodynamic stability.

Methods:

A retrospective observational cohort study involving all patients who received CKRT in Hospital Canselor Tuanku Muhriz from 1st January 2020 to 31st December 2022.

Results:

168 patients were enrolled in this study, with a median age of 66 years, and predominantly male (63.3%) and Malay (62.1%). Majority of the patients had hypertension (82.8%) and required mechanical ventilation (75.7%). More than half of the CKRT were prescribed in intensive care units (51.5%), and the remaining were done in emergency department (25.4%) and normal wards (23.1%). Continuous venovenous hemofiltration (CVVH) was the most common prescribed modality (47.9%), followed by continuous venovenous haemodialysis (CVVHD) (37.9%) and continuous venovenous haemodiafiltration (CVVHDF) (14.2%). The overall median (IQR) duration of treatment was 15.5 (20.0) hours without anticoagulation, with a significant longer duration of treatment up to 25 hours with CVVHDF without clotting ($p=0.003$) as compared to other modalities. Unfortunately, 74.6% of patients had no renal recovery and 73.4% of patients succumbed to death. Those who were of younger age and had renal recovery had lower risk of mortality, while low serum albumin was the independent risk factor of mortality among those who received CKRT. A serum albumin level of less than 25.5 g/L can predict mortality in patients who received CKRT with a sensitivity of 72.4% and specificity of 53.3%.

Conclusion:

Older age, no renal recovery, and low serum albumin are independent risk factors of mortality in patients who received CKRT of different modalities for various indications.



Submission ID: A-0130
Poster Viewing

Category: Doctor
Topic: Peritoneal Dialysis

CONTINUOUS AMBULATORY PERITONEAL DIALYSIS ASSOCIATED HISTOPLASMA CAPSULATUM PERITONITIS: A CASE OF “CULTURE-NEGATIVE” PERITONITIS

AZY Koh¹, ZT Law¹, CS Ng¹, KC Wong¹, ZH Wong¹, CHH Tan¹

¹Nephrology Unit, Department of Medicine, Sarawak General Hospital, Kuching, Sarawak

Introduction:

Histoplasma capsulatum peritonitis is exceedingly rare in patients undergoing continuous ambulatory peritoneal dialysis (CAPD). While fungal peritonitis is uncommon in CAPD, it is typically caused by Candida species. We present a rare case of Histoplasma capsulatum causing CAPD peritonitis, highlighting diagnostic and treatment challenges.

Case Summary:

A 48-year-old woman with systemic lupus erythematosus (SLE) and end-stage renal disease on CAPD since March 2020 presented in January 2024 with two days of loose stools and cloudy dialysis effluent. She denied fever, abdominal pain, or vomiting. She had three episodes of culture-negative peritonitis in April, July, and November 2023, all successfully treated with intraperitoneal Tazosin, Vancomycin, and Fluconazole. Lab investigations revealed a total white cell count (TWC) of 9.5 and elevated C-reactive protein (CRP) level of 480. The dialysis effluent cell count was 300, with over 50% polymorphs. Empirical treatment with intraperitoneal Tazosin, Vancomycin, and Fluconazole was initiated. Her symptoms initially resolved, and PD effluent turbidity improved. However, turbidity worsened on day 6 of treatment, and she agreed to PD catheter removal. After catheter removal, she developed a high-grade fever, severe abdominal pain, and worsening septic parameters (TWC 19, CRP 3249). A contrast-enhanced CT abdomen and pelvis revealed a multiloculated rim-enhancing abdominopelvic collection, the largest measuring 6 cm x 14 cm x 8 cm. A pelvic drain was inserted, and 1000 mL of turbid fluid with debris was drained. The drain was removed one week later. Peritoneal fluid cultures yielded no bacterial growth; fungal culture revealed hyaline mold. Further testing identified the fungus as Histoplasma capsulatum. She was treated with Itraconazole for three months following consultation with the Infectious Disease team and remained well.

Conclusion:

CAPD peritonitis with delayed response to antibiotics or recurrent culture-negative peritonitis should raise suspicion of fungal peritonitis. Immediate catheter removal and prolonged antifungal therapy are recommended.

Submission ID: A-0131
Oral Presentation

Category: Doctor
Topic: Glomerulonephritis

THE UTILITY OF URINE SOLUBLE CD163 IN PREDICTING DISEASE ACTIVITY OF LUPUS NEPHRITIS, A SINGLE CENTRE PILOT STUDY.

Chang Chuan CHEW¹, Yee Wan LEE¹, Chye Chung GAN¹, Shian Feng CHENG², Jun Min EM², Guo Jian LEON², Chee Keong THYE², Shok Hoon OOI², Nur Raziana ROZI³, James Yee Ern CHUA², Pavai STHANESHWAR¹, Wan Ahmad Hafiz WAN MD ADNAN¹, Maisarah binti JALALONMUHALI¹, Kok Peng NG¹, Soo Kun LIM¹.

¹Division of Nephrology, Department of Medicine, University of Malaya, Kuala Lumpur, Malaysia

²Division of Nephrology, Department of Medicine, University of Malaya Medical Centre, Kuala Lumpur, Malaysia

³Division of Nephrology, Department of Medicine, International Islamic University Malaya, Kuantan, Malaysia

Introduction:

Approximately 60% of patients with systemic lupus erythematosus (SLE) have lupus nephritis (LN). The clinical distinction between patients with active LN or chronic kidney damage is challenging. Although renal biopsy remains the gold standard in differentiating active disease and chronicity, it is invasive with risk of complications. Current biomarkers are not reliable. In LN patients, CD163 cells were found to be raised in proliferative class. The objective is to assess the utility of sCD163 in predicting LN disease activity.

Methods:

We recruited 114 LN patients and 18 normal controls. SLE disease activity index (SLEDAI) was assessed. Patients subdivided into active lupus nephritis (ALN) (renal SLEDAI_{2K} ≥4) and no renal activity (NRA) (renal SLEDAI = 0). Urine sCD163 was measured by Enzyme Linked Immunosorbent Assay (ELISA). Data analysed using SPSS v26.

Results:

There were 13(11.4%) males and 101(88.6%) females with mean age 44.1±13.9. Of note, 31 is Malay (27.2%), 71 Chinese (62.3%), 9 Indian (7.9%) and 3 of other races (2.6%). There were 77 patients (67.5%) in NRA group and 37(32.5%) in the ALN group. In the normal control, mean sCD163 was 0.04±0.03ng/ml, which was not significantly different than NRA group (P=0.744), but significantly different to ALN group (P<0.001). We found that sCD163 had significantly correlated with LN activity based on renal SLEDAI (Rho =0.714, P<0.001). Based on receiver operating characteristic (ROC) curve, sCD163 had an area under the curve (AUC) of 0.95 (CI 0.91, 0.98) and P< 0.001. The optimum cut-off value above which it could predict renal active activity was >0.87ng/ml. This corresponded to sensitivity of 70.3%, specificity of 96.1%, positive predictive value of 89.7% and negative predictive value of 87.1%.

Conclusion:

These preliminary results showed that urinary sCD163 might be a potential biomarker in predicting LN disease activity.

Submission ID: A-0132
Poster Viewing

Category: Doctor
Topic: Peritoneal Dialysis

RETROSPECTIVE STUDY ON CULTURE-POSITIVE PERITONITIS AMONG PERITONEAL DIALYSIS PATIENTS IN KELANTAN

Azimah Fakri¹, Wan Hasnul Halimi¹, Muhammad Nabil Abdullah²

¹ Department of Nephrology, Hospital Raja Perempuan Zainab II, Kota Bharu

² Clinical Research Centre (CRC), Kelantan

Introduction:

Peritoneal dialysis-associated peritonitis (PDAP) remains a major hurdle for peritoneal dialysis (PD) technique survival. Treatment and management of culture-positive peritonitis carries a challenge for nephrologist. Therefore the objective of this study was to look into culture-positive PDAP in our centre.

Methods:

This is a retrospective cohort study including all episodes of PDAP in Hospital Raja Perempuan Zainab II and Hospital Pasir Mas from January 2021 to June 2023. Patients' demographic and clinical data were reviewed and outcomes were followed up for at least 6 months.

Results:

A total of 139 episodes of PDAP culture-positive peritonitis occurred in Kelantan. Mean age of culture-positive patients was 51.0 ± 15.4 , majority were females (55% vs 45%) and the main etiology for ESKD were diabetic 44.6%, followed by hypertension 16.5%. The mean dialysis vintage was 27.6 ± 25.12 months before peritonitis occurred. About 7.9% of patients had history of exit site infection 3 months prior to peritonitis episode. There were 20.1% infection with *Staphylococcus aureus*, followed by 10.7% *Coagulase negative staphylococci*, 9.4% *Escherichia coli*, 9.3% *Streptococcus sp* and 8.6% *Pseudomonas aeruginosa*, 5.8% *Klebsiella pneumonia*, 3.6% *Candida sp* and 2.2% *Hemophilus influenza*. All PDAP culture-positive peritonitis were treated empirically with cloxacillin and ceftazidime either via intraperitoneal or Intravenous. Subsequently antibiotic were changed based on culture sensitivity with mostly about 20.0% continued with cloxacillin as majority were Methicillin Sensitive Staphylococcus Aureus (MSSA) infection, followed by 13.0 % ceftazidime. The majority of culture-positive PDAP had cured medically 59.0%, 6.5% had recurrent peritonitis, 1.4% had relapsed peritonitis, whereas 19.4% had converted to hemodialysis and 1.4% died due to severe sepsis.

Conclusion:

Culture – positive PDAP in Kelantan had successfully being treated and tenckoff catheter were able to be salvage, however permanent conversion to hemodialysis after episode of peritonitis raised a concern.

Submission ID: A-0133
Poster Viewing

Category: Doctor
Topic: Peritoneal Dialysis

A CASE REPORT OF NEISSERIA GONORRHOEA PERITONITIS IN CONTINUOUS AMBULATORY PERITONEAL DIALYSIS PATIENT

Azimah Fakri¹, Wan Hasnul Halimi¹, Siti Norizan Abdul Rani²

¹ Department of Nephrology, Hospital Raja Perempuan Zainab II, Kota Bharu

² Clinical Research Centre (CRC), Kelantan

Introduction:

Peritonitis is a leading complication of continuous ambulatory peritoneal dialysis. Most common organism include *Staphylococcus sp* infection, *E. coli* and *Pseudomonas sp*. However, *Neisseria gonorrhoea* uncommonly causing peritonitis.

Case Report:

A 33-year-old unmarried lady with background of End Stage Kidney Disease secondary to Chronic Glomerulonephritis on Continuous Ambulatory Peritoneal Dialysis (CAPD) since June 2016 presented with cloudy PD effluent and abdominal pain. Her PD effluent on day 0 showed white cell (TWC) count of 150 cells/mL with predominant 90% polymorphs. She was treated empirically as outpatient for PD peritonitis with intraperitoneal cloxacillin and ceftazidime. Subsequently her PD effluent culture results grew *Neisseria gonorrhoea*. Therefore antibiotic was changed to IP Ceftriaxone 1g ON based on sensitivity for total duration of 2 weeks. Further history revealed she had history of extramarital sexual intercourse with her boyfriend. UPT revealed negative, viral screening including VDRL were negative. There was no other symptoms to suggest pelvic inflammatory disease (PID). She responded well with antibiotic with clearing up of PD fluid and decreasing PD effluent TWC counts to 15 cells/m.

Discussion:

Neisseria gonorrhoea infection is one of the common organism in pelvic inflammatory disease. However, it is uncommon to be found in PD peritonitis. The risk factor include sexually active person, therefore it has been postulated that the migration of infection was via fallopian tube. Otherwise she had no PID manifestations. Despite the rarity of *Neisseria gonorrhoea* peritonitis infection, the standard antibiotic treatment carries good outcome. She responded well with IP ceftriaxone and now continuing her CAPD 4 times exchanges per day as usual.

Conclusion:

Gonococcal peritonitis is rare. *Neisseria gonorrhoea* peritonitis should be treated accordingly with antibiotics. Ceftriaxone is effective for gonococcal infection as illustrated in our case.



Submission ID: A-0134
Poster Viewing

Category: Doctor
Topic: Haemodialysis

THE LIGHT AT THE END OF THE TUNNEL

Nabia Idaam Mustapa Albakari¹, Suryati Yakob¹

¹Department of Nephrology, Hospital Kuala Lumpur, Malaysia

Arteriovenous fistula (AVF) is the dialysis access of choice in long-term hemodialysis (HD) patients as lower risk of infection, hospitalization, and mortality. Thrombosis is the leading cause of access loss. We report the utilization of ultrasound (US)-duplex in diagnosis of AVF thrombosis leading to quick endovascular intervention and US-guided AVF cannulation and low molecular weight heparin (LMWH) post-intervention in preserving the lifespan of AVF. We described a case of 61 years old with 7 years HD vintage and poor candidate for peritoneal dialysis. She presented to the dialysis unit with a diminished thrill of left brachio-basilic fistula (BBF); created 5 years ago. Bedside US-duplex in dialysis unit revealed thrombosis at juxta-anastomosis and both cannulation sites. She has a history of symptomatic superior vena cava occlusion requiring intervention. She underwent endovascular thrombectomy with wall contact thrombectomy device and percutaneous old balloon angioplasty (POBA) within 3 days of diagnosis. US-duplex on the following day showed new thrombosis appearing near the swing segment at the aneurysmal site; with PSV ratio >2 and reduced flow distally. Patient was started on subcutaneous enoxaparin 40mcg OD for 30 days and the left BBF was cannulated using US guidance to avoid areas of residual thrombosis and post-cannulation injury. Weekly surveillance US-duplex by the nephrology team showed resolved thrombosis and AVF is preserved to date. Maintaining AVF patency has remained a challenge. Utilization of US-duplex helps quick diagnosis of problematic fistula and prevents cannulation-related complications. Despite swift endovascular intervention, recurrent AVF thrombosis post successful thrombectomy is associated with poor patency outcomes, especially occurring within 90 days of thrombectomy. LMWH has been shown to improve patency rates in similar cohorts. Here, we demonstrated a case to show potential benefit of using US-Duplex in dialysis unit for diagnostic and cannulation purposes with LMWH post-thrombectomy to maintain secondary patency of AVF.

Submission ID: A-0139
Oral Presentation

Category: Doctor
Topic: Haemodialysis

COMPARISON TREATMENT EFFICACY BETWEEN SUPER HIGH FLUX DIALYZER (SHF-HD), MEDIUM CUT-OFF (MCO) DIALYZER AND STANDARD HIGH FLUX DIALYZER IN CHRONIC HEMODIALYSIS PATIENTS: A SINGLE CENTRE EXPERIENCE

Dr. Hazrain Bin Mohamed Roslan¹, Dr. Shahnaz Binti Shah Firdaus Khan¹, Dr. Irene Wong¹, Dr. Fairuz Binti Mohd Jonikhir¹, Dr. Hanisah Abdul Hamid² Che Ku Yusran Bin Che Ku Hasan¹, Amizan Bin Othman¹

¹Department of Nephrology, Hospital Tengku Ampuan Rahimah, Klang, Malaysia

²Department of Pathology, Hospital Tengku Ampuan Rahimah, Klang, Malaysia

Introduction:

Accumulation of uraemic toxins in end stage kidney disease (ESKD) patients are associated with increased morbidity and mortality in haemodialysis patients. Removal uraemic toxins will require different pores size dialyzer based on molecular weight of the toxins. The standard high flux (HF) dialyzers are not efficient in removing some of the middle molecules toxins due to pore size of the membrane; hence newer SHF-HD and MCO dialyzers were developed. This study aimed to look for clearance difference and removal rate of uraemic toxins between HF, SHF and MCO dialyzers.

Methodology:

This is a prospective, controlled, cross-over, single centre trial. Chronic haemodialysis patients fulfilled inclusion criteria who are on HF dialyzer were assigned to receive one haemodialysis treatment with Baxter Theranova 500 (MCO) dialyzer. Subsequently patients were continued with HF dialyzer for next three haemodialysis session as wash out period. The same group of patients received one haemodialysis session with Nipro ELISIO-21HX dialyzer (SHF-HD). Clearance of middle molecule such as beta-2 microglobulin and Interleukin-6 (IL-6) and small molecules removal rate were calculated and compared between different dialyzers.

Results:

A total of 5 chronic haemodialysis patients were recruited. The mean age was 46 ± 11 years old. The mean blood pump speed (Qb) was 334 ± 42 ml/min and dialysis access constituted of 60% using BCF, 20% using BBF and 20% using permanent cuffed catheter. The mean clearance of beta-2 microglobulin via HF was 103.5 ± 15.5 , MCO was 193.4 ± 16.0 and SHF dialyzer was 179.5 ± 25.7 ml/min. There was significant difference between HF vs MCO, $p=0.001$, HF vs SHF, $p=0.008$, however no significant difference between MCO vs SHF, $p=0.21$. No significant difference between urea reduction ratio (URR) and clearance of IL-6 across three different dialyzers.

Conclusion:

SHF and MCO dialyzers are equally effective in middle molecules toxins removal as compared to standard HF dialyzer.



Submission ID: A-0141
Poster Viewing

Category: Doctor
Topic: Glomerulonephritis

CASE REPORTS: SINGLE CENTER EXPERIENCE WITH IMMUNOGLOBULIN-G4 RELATED DISEASES OF DIFFERENT SPECTRUM.

Soon-Hooi Lim¹, Wai-Kar Lau¹, Anusha Kalyanasundaram², Kah-Mean Thong¹, Sridhar Ramanaidu¹, Yee-Yan Lee¹, Alexander Kok-Yip Chow¹, Chek-Loong Loh¹

¹Nephrology Unit, Department of Medicine, Hospital Raja Permaisuri Bainun, Ipoh, Malaysia.

²Department of Pathology, Hospital Raja Permaisuri Bainun, Ipoh, Malaysia.

Introduction:

IgG4 related disease (IgG4-RD) is a rare fibroinflammatory disease which may affect multiple organ systems. Its insidious nature often leads to delayed diagnosis and irreversible organ functional impairment.

CaseSummary:

Two cases were reported, highlighting the challenges in making the diagnosis for IgG4-RD of different spectrum and the disease trajectory. The first case was a middle-age diabetic lady with constitutional symptoms, lymphadenopathy, proptosis and mild kidney impairment. The second was an asymptomatic middle-age diabetic man with normal baseline kidney function, presented with unexplained rapid estimated glomerular filtration rate (eGFR) decline. Proteinuria for both patients were nonsignificant. Eosinophilia, hypocomplementemia and raised IgG4 levels were noted. Kidney biopsies of both cases showed diffuse interstitial lymphoplasmacytoid infiltrations, predominantly IgG4 positive plasma cells, with extensive fibrosis. Moderate dose and fast tapering of oral prednisolone monotherapy resulted in significant kidney function recovery with normalization of eosinophil, globulins and complement level. Both patients were maintained on prednisolone 5mg/day maintenance and kidney function remained stable at chronic kidney disease (CKD) throughout follow-up.

Conclusion:

The diagnosis of IgG4-RD is challenging and often delayed, as we need to exclude other differential diagnoses. The decision of kidney biopsy in patients with diabetes mellitus often varies among individuals. Steroid monotherapy is adequate to induce remission regardless of disease phenotypes. Eosinophil, complements and globulin levels, specifically IgG4 can be used as biomarkers to assess disease activity to guide need of the immunosuppression.

Keywords: Immunoglobulin-G4 (IgG4) related disease (IgG4-RD), kidney impairment, kidney biopsy, steroid monotherapy, eosinophilia.



Submission ID: A-0142
Poster Viewing

Category: Paramedic
Topic: Infections

OUTPATIENT INTRAVENOUS ANTIBIOTICS AT HAEMODIALYSIS CENTRE FOR HAEMODIALYSIS CATHETER-RELATED BLOOD STREAM INFECTION

Kiew Bing PAU¹, Kuan Yee LIM^{2,3}, Lydia KAMARUZAMAN^{2,3}, Ruslinda MUSTAFAR²,
³Rozita MOHD^{2,3}

¹Department of Pharmacy, Hospital Canselor Tuanku Muhriz, Malaysia

²Department of Medicine, Faculty of Medicine, Universiti Kebangsaan Malaysia, Malaysia

³Department of Medicine, Hospital Canselor Tuanku Muhriz, Malaysia

Introduction:

Catheter-related blood stream infection (CRBSI) is a common complication in end-stage kidney disease (ESKD) requiring regular haemodialysis via a central venous catheter. CRBSI leads to prolonged hospitalization with increased morbidity and mortality. Outpatient intravenous antibiotics at haemodialysis centre can relieve the saturation of patients with limited beds available in government hospital as well as reduce the hospitalization-related complications in ESKD.

Methods:

A retrospective analysis of patients with ESKD and CRBSI who were treated with outpatient intravenous antibiotics at haemodialysis centre. Demographic data of patients and prescription of antibiotics were recorded in online electronic records.

Results:

A total of 673 patients with ESKD were treated with outpatient intravenous antibiotics for CRBSI from year 2015 to 2023, with a mean age of 59 years, equal sex distribution, and predominantly Malay (71%). The number of CRBSI in ESKD had a reducing trend with 228 cases from year 2015 to 2017, and 264 cases from year 2018 to 2020, to 181 cases from year 2021 to 2023. However, there was a decrease in the antibiotics compliance rate from 91.2% from year 2015 to 2017, to 53.4% from year 2018 to 2020, and improved to 80.1% from year 2021 to 2023 after reinforcement. After treatment with outpatient intravenous antibiotics at haemodialysis centre, the readmission rate for repeated infection was below 10% in year 2020 (8.9%), 2021 (8.3%), and 2022 (8.5%), but slightly increased to 11.1% in 2023.

Conclusion:

Outpatient intravenous antibiotics at haemodialysis centre is a way to reduce length of hospital stay and hospitalization-related morbidity and mortality. A proper follow-up is crucial to ensure the compliance and completion of antibiotics therapy.



Submission ID: A-0143
Poster Viewing

Category: Doctor
Topic: Others : Dysnatremia

DYSNATREMIA IN HOSPITALIZED PATIENTS: PREVALENCE, CHARACTERISTICS, AND OUTCOMES

Lee, C. F.¹, Nagaretnam, L.¹, Harun, A. H. B.¹, Lim Thiam Seong, C.². (2024) ¹Department of Medicine, Hospital Sultan Abdul Aziz Shah ²Department of Nephrology, Hospital Sultan Abdul Aziz Shah

Introduction:

Dysnatremia, which refers to abnormal levels of serum sodium, is a common condition among patients admitted to hospitals. This study aimed to investigate the prevalence, characteristics, and outcomes of dysnatremia cases among patients admitted to the general medical unit of Hospital Sultan Abdul Aziz Shah.

Methods:

A retrospective case analysis was conducted, examining hospital admission records from January 1, 2024, to April 30, 2024, involving a total of 668 patients. Hyponatremia was defined as serum sodium levels below 135, and hypernatremia was defined as serum sodium levels above 145. The serum sodium levels of patients upon admission were collected and analyzed.

Results:

Dysnatremia was present in 43% of the admitted patients. Hyponatremia accounted for 94.8% of these cases, while hypernatremia represented 5.2%. The majority (67.8%) of the hyponatremic patients had mild hyponatremia (serum sodium 130-134), and only 5.9% had severe hyponatremia (serum sodium <125). The severity of hyponatremia tends to increase with increasing age. Hypernatremia was more common in older patients, with a mean age of 74 years. The most common comorbidity associated with dysnatremia was chronic kidney disease. Common presenting symptoms among patients with hyponatremia included diarrhea, vomiting, and poor oral intake, whereas hypernatremic patients often exhibited neurological manifestations such as reduced responsiveness and lethargy. None of the patients received rapid correction of their serum sodium levels. There was no significant difference in the length of hospital stay between hyponatremia and hypernatremia patients.

Conclusions:

Dysnatremia is very common among patients admitted to hospitals, with hyponatremia being much more prevalent than hypernatremia. The presenting symptoms for hyponatremia and hypernatremia differ. Contrary to guidelines, patients with symptomatic dysnatremia did not undergo a faster correction of their serum sodium levels.



Submission ID: A-0144
Poster Presentation

Category: Doctor
Topic: Others : Kidney Supportive Care

BASELINE CHARACTERISTICS OF PATIENTS CHOOSING COMPREHENSIVE CONSERVATIVE CARE IN A TERTIARY CENTRE: A CROSS-SECTIONAL STUDY

Sze Mun Tan, Yi Lin Chia, Benjamin Wei Wang Tan, Koh Wei Wong

Nephrology Unit, Hospital Queen Elizabeth, Sabah, Malaysia.

Introduction:

The kidney supportive care (KSC) services in Queen Elizabeth Hospital was started in April 2023 as a conjoint effort between Nephrology and Palliative Unit to address the unmet need of advanced chronic kidney disease (CKD) patients who opted for comprehensive conservative care (CCC) through shared decision-making. As part of an effort to streamline these services, we aim to better understand the baseline clinical profile of all advanced CKD patients who chose CCC.

Methodology:

A cross-sectional study was carried out among all advanced CKD patients (eGFR <30mls/min/1.73m²) receiving outpatient treatment who chose CCC as early as 2019 till April 2024. Patients who were undecided about long term KRT or lost to contact were excluded.

Results:

A total of 83 patients were included in the study. Age of patients at the time of decision making ranged between 47-91years with a mean age of 72.7 years (+8.184). 54.2% (n=45) of the patients were female. 85.5% (n=71) of the decisions were self-determined. Mean eGFR at time of decision making was 11.9ml/min/1.73m² (+6.366). 65% (n=54) of patients had a Karnofsky Performance Status Scale of above 80 suggesting a robust performance of daily activities at the initial start. In terms of frailty measurement, 9.6% of patients had moderate to severe frailty (defined by a Clinical Frailty Score of above 6). 90.4% of patients (n=75) remained with their decision. 73.3% (n=55) of patients who remained with the decision were alive as of 8 April 2024.

Conclusion:

Understanding the baseline characteristics of advanced CKD patients who opted for CCC is vital to help develop and strengthen provision of KSC services. This is to ensure that they are well supported till the end, emphasizing delivery of healthcare that is both holistic and patient-centered.



Submission ID: A-0145
Poster Viewing

Category: Doctor
Topic: Glomerulonephritis

COEXISTING NON-CRYSTALLINE LIGHT CHAIN PROXIMAL TUBULOPATHY WITH CAST NEPHROPATHY - A CASE REPORT

Jacelyn Yi Ting Heng¹, Yon Quan Chan¹, Benjamin Wei Wang Tan¹, Hemlata Kumari A/P
Gnanasegaram², Koh Wei Wong¹

¹Renal unit, Department of Medicine, Hospital Queen Elizabeth, Sabah, Malaysia

²Renal Pathology Unit, Department of Pathology, Hospital Kuala Lumpur, Malaysia

Introduction:

Kidney complications are frequently encountered in plasma cell dyscrasias, with various forms of pathology reported. Some pathologies, namely light chain cast nephropathy (LCCN) is common, while others, such as light chain proximal tubulopathy (LCPT) are rare. The concurrent occurrence of LCCN and LCPT is rare, with only 11 cases reported worldwide till date. We report a gentleman, who was found to have both LCCN and LCPT due to multiple myeloma (MM).

Case Report:

A 53-year-old gentleman with underlying hypertension, presented with non-nephrotic range proteinuria and acute kidney injury (AKI) requiring dialysis. Initial investigations revealed a serum creatinine of 673 $\mu\text{mol/L}$, 24-hour urine protein of 2 gram/day with normal serum albumin 46 gram/L and calcium levels 2.5mmol/L. Biochemical features of Fanconi syndrome were not present. A kidney biopsy was subsequently performed. Light microscopy and electron microscopy demonstrated proximal tubular injury with intra-cellular non-crystalline inclusions and eosinophilic, PAS-negative intra-tubular casts. The inclusions showed granular staining for kappa light chain restriction (3+). Serum and urine protein electrophoresis followed by bone marrow analysis confirmed the diagnosis of MM. He achieved partial renal recovery and became dialysis free after completing 6 cycles of chemotherapy.

Conclusion:

Due to differences in the biochemical properties of light chains, LCCN and LCPT principally do not co-exist. In LCCN, free light chains (FLCs) are degraded by lysosomes, while excess FLCs bind to the Tamm-Horsfall protein, forming casts. In LCPT, FLCs are generally resistant to proteolysis by lysosomes, resulting in self-aggregation and tubulointerstitial injury. Depending on the degree of injury, patients can present with Fanconi syndrome, AKI, proteinuria or osteomalacia. The pathomechanism of this phenomenon, as illustrated in this case, remains poorly understood.



Submission ID: A-0146
Poster Viewing

Category: Doctor
Topic: Peritoneal Dialysis

A RARE CASE OF GORDONIA HONGKONGENSIS PERITONITIS IN A PATIENT ON PERITONEAL DIALYSIS

Then RF¹, Hazlina WM¹, Azrini AA¹

¹Department of Nephrology, Hospital Kuala Lumpur, Wilayah Persekutuan, Kuala Lumpur

Introduction:

Peritonitis is one of the complications of peritoneal dialysis (PD). PD Peritonitis is classified based on cause, time-specific or outcome. Gram positive cocci are the most frequent aetiological agents worldwide. However, there are some rare organisms being reported.

Methodology:

We report a case of *Gordonia Hongkongensis* PD Peritonitis.

Results:

A 43 years old gentleman with background of End Stage Kidney Disease (ESKD) on assisted Automated Peritoneal Dialysis (APD) since July 2023 presented with cloudy effluent and diarrhea for one day. His blood pressure was 150/70 mmHg, pulse rate of 86/min and temperature documented was 37 degree Celsius. Blood and peritoneal fluid culture were taken. He was started empirically on intraperitoneal Ceftazidime and Cefazolin. PD cell count was 125 cell/mm³ with 90% polymorph cells. Total white blood cell was 8.01 X 10⁹ and C-Reactive Protein was 9.2 mg/L. Our most intriguing finding was presence of *Gordonia Hongkongensis* in peritoneal fluid culture. Antibiotics were changed to Vancomycin according to antibiogram. His condition and effluent improved within 48 hours of Vancomycin. Repeated cell count shows 0 cell/mm³. He was discharged well with completion of three weeks of antibiotics.

Conclusion:

Gordonia spp. are members of the family *Gordoniaceae* in the suborder *Corynebacteriales*. It can be mostly found in soil. *Gordonia* spp causes localised, postoperative or traumatic infections. In immunocompromised patients, systemic infections can be due to contaminated biofilm adherent on endovascular devices. In recent years, *Gordonia* spp are emerging causes of PD peritonitis. *Gordonia Hongkongensis* is a gram-stain-positive, acid-fast, non-motile, non-sporulating bacilli. *Gordonia Hongkongensis* PD Peritonitis is rarely reported. To date, there were only two other reported cases of *Gordonia Hongkongensis* PD Peritonitis in Hong Kong. Although this is a rare organism, the significance of these organisms should not be neglected as they can easily be treated with correct antibiotics.



Submission ID: A-0147
Poster Viewing

Category: Doctor
Topic: Haemodialysis

PREVALENCE AND FACTORS ASSOCIATED WITH MALNUTRITION AMONG CHRONIC HAEMODIALYSIS (HD) PATIENTS IN A TERTIARY HOSPITAL.

Subramaniam J¹, Chow AKY¹, Lim SH², Gan WL², Thong KM², Lee YY², Ramanaidu S², Loh CL²

^{1,2} Nephrology unit, Department of Medicine, Hospital Raja Permaisuri Bainun, Ipoh, Malaysia.

Background:

Malnutrition is not uncommon among haemodialysis patients and is associated with significant morbidity and mortality. We aim to assess the prevalence of malnutrition among HD patients in a local setting.

Methodology:

A cross-sectional study was conducted on chronic outpatient haemodialysis patients at Hospital Raja Permaisuri Bainun. We excluded patients with concurrent infections and recent admission \leq 3 months. The nutritional status was measured using a 7-point subjective global assessment (SGA) questionnaire – malnutrition is diagnosed if the patient scored \leq 5 points. We also analysed anthropometric parameters including body mass index (BMI), mid-upper arm circumferences (MUAC), and handgrip strength (HGS); as well as biochemical parameters including serum albumin, phosphate, calcium, haemoglobin, total iron binding capacity (TIBC), ferritin, cholesterol, and adequacy of dialysis (Kt/V).

Results:

Forty-eight patients were recruited using convenient sampling. Among them 26 (54.2%) were male with median age of 55.5 (IQR:32) years. Hypertension 79.2% was the most common comorbid condition followed by diabetic mellitus 33.3%. The median dialysis vintage was 5 (IQR:5) years. Median SGA score was 6 (IQR:1). Malnutrition was diagnosed in 16.7% of patients – they were mild to moderate in severity. We found that the incidence of malnutrition is significantly associated with underweight BMI categories ($p=0.023$) and a lower HGS ($p=0.017$). Malnutrition patients have a lower MUAC score and cholesterol level although it was not statistically significant. We did not find significant correlation between malnutrition and other biochemical parameters, Kt/V and HD vintage in this study population.

Conclusion:

Our study concluded that our HD patients have an overall good nutritional status. This is on par with data from developed countries. These assessment tools should be used periodically to identify HD patients with malnutrition who may otherwise be unrecognized.

Submission ID: A-0148
Poster Viewing

Category: Doctor
Topic: Peritoneal Dialysis

RISK FACTORS FOR PRE-PERITONEAL DIALYSIS PERITONITIS: INSIGHTS FROM A SINGLE-CENTER EXPERIENCE

Chia Ling CHEW¹, Chee Seng NGE¹, Wan Hazlina WAN MOHAMAD¹, Azrini ABDUL AZIZ¹,
Sunita BAVANANDAN¹

¹Department of Nephrology, Hospital Kuala Lumpur

Introduction:

Since the introduction of concept of pre-peritoneal dialysis peritonitis (Pre-PD Peritonitis) in 2022, efforts have focused on minimizing its incidence. This study aims to pinpoint potential risk factors associated with Pre-PD peritonitis.

Methods:

We conducted a retrospective analysis of data from patients who underwent their initial Tenckhoff Catheter (TK) insertion by the Nephrology team at Hospital Kuala Lumpur between 2022 and 2023.

Results:

Among the 216 patients included (mean age 53.1 years; 58.3% male), a majority were diabetic (68.8%), with 94.4% successfully commencing peritoneal dialysis, averaging 10.1 days post-TK insertion. Pre-PD peritonitis occurred in 13.4% of patients, with a lower rate observed in 2023 (9.6%) compared to 2022 (16.5%). Analysis revealed no significant associations between Pre-PD peritonitis and age, gender, time to PD initiation, diabetes mellitus, hypertension, BMI >25, TK exit site infection, leaking TK exit site, or dialysis modality conversion from hemodialysis. However, upon closer examination, no instances of Pre-PD peritonitis were observed in patients who underwent TK insertion via the Seldinger technique in the Nephrology ward procedure room, contrasting with peritoneoscope-guided insertions in the operating theater ($p=0.018$).

Conclusion:

Classical clinical risk factors are not associated with Pre-PD peritonitis. Other aspects such as PD catheter insertion techniques, environment, surgical equipment and solutions need to be considered in tackling Pre-PD peritonitis.



Submission ID: A-0149
Oral Presentation

Category: Paramedic
Topic: Haemodialysis

EXPLORING MEDICATION ADHERENCE AND ACCEPTANCE FOR TELEPHARMACY SERVICES AT STAND-ALONE DIALYSIS CENTRES IN SELANGOR: A PILOT STUDY

Norkasih Ibrahim^{1,2}, Siti Nur Aisyah Ramli¹, Ahmad Fauzi DALI¹, Syahrul Bariah Abdul Hamid³, Azri Syahmi Azri³, Yogini Jani⁴, Ng Su Ying⁵, Muhammad Iqbal Abdul Hafidz⁶

¹Department of Pharmacy Practice and Clinical Pharmacy, Faculty of Pharmacy UiTM, Selangor, Malaysia ²Centre for Drug Policy and Health Economic Research, Faculty of Pharmacy UiTM, Selangor, Malaysia ³Centre for Dietetics Studies, Faculty of Health Sciences Universiti Teknologi MARA UiTM, Selangor, Malaysia. ⁴Centre for Medicines Optimisation Research and Education, University College London Hospitals NHS Foundation Trust & UCL School of Pharmacy London, United Kingdom. ⁵Hemodialysis Service, St. John Ambulance Malaysia-Kawasan Pantai Selangor, Selangor, Malaysia. ⁶Nephrology Unit, Hospital Al-Sultan Abdullah UiTM, Selangor, Malaysia.

Introduction:

Telepharmacy Services (TPS) is an innovative approach that provides medication consultation remotely to patients receiving treatment at stand-alone dialysis centres. This study aims to investigate the level of medication adherence among patients in stand-alone dialysis centres in Selangor and the factors influencing their acceptance of TPS.

Methods:

A convenient sampling cross-sectional survey was conducted at five centres using the validated End Stage Renal Disease Adherence Questionnaire (ESRD-AQ) collecting data on sociodemographics, medication adherence, financial support for dialysis and medications, and interest in TPS from April to July 2023. Composite scores for medication adherence questions were categorised as good (150–200), moderate (50–149), and poor (0–49). Descriptive data are presented in median (range) and percentages. The association between sociodemographic variables and TPS acceptance was tested using the Chi Square and Fisher Exact, with a p-value of < 0.05 as significant.

Results:

A total of 71 respondents were recruited, with a median age of 56 (22–76) years old and 54.9% being male. The majority were Malays (56.3%), married (87.3%), unemployed (67.6%), and received financial support (74.6%). About 88.7% respondents had good medication adherence, with median score of 200 (100–200). Obstacles to adherence included forgetfulness, inconvenient schedule, and a high pill burden. Around 64.8% agreed that TPS would be helpful in promoting adherence and associated with being Malay ($X^2([2], N = 71) = 12.65, p = < 0.002$), higher education status ($X^2([2], N = 71) = 4.61, p = < 0.043$), receiving financial support ($X^2([2], N = 71) = 7.09, p = < 0.01$), and having frequent medication discussion at the centres ($X^2([2], N = 71) = 13.47, p = < 0.001$). About 50.7% of respondents expressed interest in TPS but were limited by time and familiarity with online platforms.

Conclusion:

Stand-alone dialysis facilities offer invaluable potential for integrating novel approaches to effective medication counselling and adherence.



Submission ID: A-0150
Poster Viewing

Category: Doctor
Topic: Transplant

COMPLEX MANAGEMENT OF ACUTE GRAFT DYSFUNCTION IN AN EBV-NAÏVE RENAL TRANSPLANT RECIPIENT: A CASE REPORT

Soon Leng Lee¹ Yinn Rhu Phang² Sham Nurul Ain³ Chee Long Chong⁴
Seow Yeing Yee⁵ Mohamad Zaimi Abdul Wahab⁶

Department of Nephrology, Hospital Kuala Lumpur, Ministry of Health Malaysia

We report a case of a 18 years old lady who underwent living related renal transplantation in year 2020 and EBV naïve , admitted for acute graft dysfunction . She also complained of sore throat, diarrhoea and vomiting few days prior to her admission. Graft renal biopsy was performed and showed antibody mediated rejection . She was given pulsed methylprednisolone and underwent 5 sessions of plasmapheresis with intravenous immunoglobulin (IVIg), total 1g/kg given post plasmapheresis. However, her renal function showed initial improvement during plasmapheresis but worsening few days after plasmapheresis . Repeated graft biopsy was done and revealed EBV nephritis with improving ABMR. Second course of IVIg total 1g/ kg was given 2 weeks after the first course. Rituximab and acyclovir were also administered few days after the second graft biopsy for preemptive treatment of EBV viremia. Her renal function slightly improved few days after Rituximab . This highlights the complexity of managing acute graft dysfunction in EBV-naïve renal transplant recipients and the potential role of comprehensive antiviral and immunosuppressive therapy.

Submission ID: A-0151
Poster Viewing

Category: Doctor
Topic: Peritoneal Dialysis

CLINICAL OUTCOME OF PERITONEAL DIALYSIS IN ELDERLY: AN OBSERVATIONAL STUDY IN JOHOR DISTRICT HOSPITALS

Nordin.H¹, Darshini.B¹, Sze XQ², Atiqah.A³, Suguna.E³

¹Department of Internal Medicine, Hospital Sultanah Nora Ismail, Batu Pahat, Johor, Malaysia

²Nephrology Unit, Hospital Sultanah Nora Ismail, Batu Pahat, Johor, Malaysia

³Department of Internal Medicine, Hospital Enche' Besar Hajjah Khalsom, Kluang, Johor, Malaysia

Introduction:

In this era, improvement in healthcare facilities has increased the life expectancy of patients and large number of elderly patients are being diagnosed with end-stage renal disease with a need for dialysis. Peritoneal dialysis (PD) is an ideal modality for renal replacement therapy (RRT). Elderly patients with age related co-morbidities limit the safe initiation of PD.

Methodology:

A retrospective observational study of patients aged more than 65 years old who underwent PD between April 2021 till April 2024 in 2 district hospital in Johor namely Hospital Sultanah Nora Ismail (HSNI) and Hospital Enche' Besar Khalsom (HEBHK).

Results:

In this study, 52 elderly patients which accounts for 21.6% of total PD patients attending HSNI and HEBHK. The mean age were 74.2 ± 6.4 years. Most of patients need assisted peritoneal dialysis (88.5%) and 5.7% were on Automated Peritoneal Dialysis (APD). Mean duration of PD observed was 21.4 ± 12.1 months. Complication outcomes were divided into 2 groups, non-infection and infection related complications. For the non-infection complications, 5.8% had abdominal hernia and 3.8% had catheter malfunction. As for the infection related complications, peritonitis incidence rate was 0.31 episode per patient-year. While exit site infection incidence were observed at 0.20 episode per patient-year and tunnel tract incidence rate recorded at 0.03 episode per patient-year. A total of 15.4% of patients had their PD catheter removed due to infection. As for the technique survival, 52% of the elderly patients continued on PD over the 3 years study period, while 48% terminated their peritoneal dialysis (28.8% death-censored, 15.4% converted to haemodialysis and 3.8% withdraw from PD).

Conclusion:

This study demonstrates that the infection related complications among elderly patients were in-line with the ISPD target of < 0.4 per-patient year. PD should be offered and encouraged among the elderly as one of their RRT options.



Submission ID: A-0152
Poster Presentation

Category: Doctor
Topic: Haemodialysis

SARCOPENIA AFFECTS CLINICAL OUTCOMES OF END STAGE RENAL DISEASE (ESRD) PATIENTS TREATED WITH HAEMODIALYSIS (HD)

Jiawen C, SH Ooi, Prof KP Ng

Department of medicine, Nephrology Unit, PPUM

Background:

Sarcopenia is defined as the loss of skeletal muscle mass and function, is now increasingly recognised as a significant concern in patients with end-stage renal disease (ESRD) undergoing hemodialysis (HD). Hence, the presence of sarcopenia in ESRD patients undergoing HD has been associated with several adverse clinical outcomes which are increased hospitalisation, increased mortality and reduced quality of life.

Objectives:

This study aims to assess how sarcopenia affects the clinical outcome of ESRD patients undergoing HD.

Method:

This is a prospective study, which involves collection of data under University Malaya Medical Center (UMMC) and two other satellite centers. Consented patients will be assessed on their appendicular skeletal muscle (ASM), muscle strength and physical performance to assess the degree of sarcopenia. They are then classified into 3 groups, namely non sarcopenia, sarcopenia and severe sarcopenia. Their clinical outcomes are then followed up over period of 2 years duration.

Results:

71 patients were recruited with male to female ratio of 50.7% (n=36) and 49.3% (n=35). 14 participants (20.9%) are non-sarcopenic, 28 (41.8%) are sarcopenic and 25 (37.3%) are severely sarcopenic. Out of all of them, 47 participants (65.3%) are alive, 8 participants (11.1%) has history of hospitalisation and there are 15 participants (20.8%) who have passed away during the period of follow up.

Conclusion:

Addressing sarcopenia in ESRD patients undergoing HD is extremely crucial as it will affect their clinical outcomes. By knowing that, a comprehensive and holistic approach that includes nutritional optimisation, physical activity promotion, and management of comorbid conditions can be carried out to enhance the quality of life for HD patients. Regular monitoring of muscle mass, strength, and functional status is essential to track progress and adjust interventions as needed.



Submission ID: A-0154
Poster Viewing

Category: Doctor
Topic: Transplant

LIVING KIDNEY DONOR'S OUTCOME IN A SINGLE CENTRE

Chan Zi Yin, Zachary Leong, Jason Kong, Chelsia Chan, Cheng Mei Chih, Liew Yew Fong

Department of Nephrology, Hospital Pulau Pinang, Pulau Pinang, Malaysia

Introductions:

Living donors kidney transplant provides better quality of life than dialysis. The life expectancy and risk of end stage kidney disease of kidney donors appears to be similar to general population. More local studies on the long-term outcomes of kidney donation would be helpful in transplant counseling.

Methods:

Retrospective observational study was done on living kidney donors followed up in our hospital for at least one year post transplant. Demographics and clinical variables were obtained from clinic records. Statistical analysis conducted using Number Analytics.

Results:

There are a total of 47 donors, 66% were female, most (81%) are non-smoker, mean donation age 46(+/-11), mean duration of follow-up post-transplant 16 (+/-11) years. 64% of them are parents to the recipients (mother 77%, father 23%) 23% are siblings (brother 63%, sister 36%) and 13% are spouses (wife 67%, husband 33%). Main population are Chinese (62%) followed by Malay (19%), Indian (17%), and others (2%) corresponding to the local population. There were 2 deaths due to stomach cancer and ovary cancer respectively, however no donors developed end stage kidney disease. 23.4% of our donors developed new onset hypertension (mean onset at 12 years) while 21.28% of our donors developed new onset proteinuria 1+ or higher noted in UFEME (mean onset at 14 years). The serum creatinine post donation (mean in micromol/L) raised right after kidney donation, peaked at one year post operation (103+/-27), then gradually improved and remained static up to 15 years post donation (96+/-31). Higher BMI is associated with new onset proteinuria. Pre-existing hypertension wasn't associated with any negative outcomes.

Conclusions:

Most living kidney donors have well preserved renal function in the long run however post kidney donation hypertension and proteinuria are not uncommon. Overweight donors are at higher risk of developing proteinuria post kidney donation.

Submission ID: A-0155
Poster Viewing

Category: Doctor
Topic: Haemodialysis

CHRONIC HEMODIALYSIS (HD) PATIENTS WITH NO FUNCTIONING ARTERIOVENOUS FISTULA (AVF) WITH TUNNELED CUFFED CATHETER (TCC): AN OVERVIEW

Muhammad Imran KAMARUDIN^{1,2}, YEOH Hung Yew¹, Suryati YAKOB¹

¹ Department of Nephrology, Hospital Kuala Lumpur, Malaysia

² Department of Internal Medicine, Universiti Sains Malaysia, Malaysia

Introduction:

Establishing appropriate vascular access mainly functioning arteriovenous fistula (AVF) is critical for effective hemodialysis treatment. Some patients experience challenges in creating AVF and are unable to undergo peritoneal dialysis (PD) due to various reasons. Internal jugular vein (IJV) TCC remains as an alternative vascular access for them. This study aims to evaluate the demographic characteristics and barriers encountered by chronic HD-patients on IJV TCC without functioning AVF and failed PD transitioning.

Methods:

This retrospective cohort study examined medical records of chronic HD patients without functioning AVF opting for IJV TCC insertion in an outpatient setting at Hospital Kuala Lumpur from 1st January 2023 to 31st December 2023. Patient demographics, comorbidities, causes of AVF creation failure, and factors contributing to the failure of PD transitioning were analyzed.

Results:

This cohort constitutes of 83 patients, predominantly male gender, 59%, (n=49) with a mean age of 58 ±13-year-old. Primary comorbidity was diabetes, 73% (n=60), followed by ischemic heart disease (33.7%, n=28) and cerebrovascular disease(12%,n=10) respectively. Among these patients, 75.9% (n=63) were engaged in kidney replacement therapy (KRT) preparatory clinics for over three months prior to initiating dialysis. Despite this, a significant proportion (54.2%, n=44) commenced dialysis acutely without prior decisions and preparation regarding long-term KRT, with 62.7% (n=52) being AVF-naïve due to unsuitable vessels for AVF creation. Barriers in transitioning to PD, notably 53% (n=44) either refused or were disinterested, 31.3% (n=26) failed PD assessments, and 15.7% (n=13) were transferred from previously failed PD modality

Conclusion:

These findings underscore the need for enhanced strategies to address vascular access issues and facilitate PD transitions, especially when kidney transplantation is not viable. Interdisciplinary efforts and targeted interventions are crucial to improve AVF creation for timely dialysis initiation, PD awareness, and uptake.

Submission ID: A-0156
Poster Viewing

Category: Doctor
Topic: Peritoneal Dialysis

ENCAPSULATING PERITONEAL SCLEROSIS, AN UNDERDIAGNOSED BUT DISABILITATING COMPLICATION OF LONG-TERM PERITONEAL DIALYSIS, A SINGLE CENTRE RETROSPECTIVE ANALYSIS

Dingyi ANG¹, Esther Zhao Zhi TAN¹, Boon Cheak BEE¹

¹ Department of Nephrology, Hospital Selayang, Selangor, Malaysia.

Introduction:

Encapsulating peritoneal sclerosis (EPS) is a rare but severe complication of peritoneal dialysis (PD). The pathogenesis of EPS involves chronic inflammation, upregulation of pro-fibrotic factors, mesothelial cell transformation and progressive peritoneal fibrosis. This study aims to analyse the clinical outcomes of Malaysian PD patients who developed EPS.

Methods:

This is a single centre retrospective analysis of all PD patients ≥ 18 years old who developed EPS at Hospital Selayang from January 2017 to June 2024. Clinical data was obtained from patients' electronic medical records and analysed using SSPS.

Results:

Fourteen patients were diagnosed with EPS during the study period. Of these 14 patients, 8 (57.1%) were female and 8 (57.1%) had diabetes mellitus. Patients' median age was 45 years old (interquartile range [IQR] 17) and had median PD vintage of 50 months (IQR 83) at diagnosis. Nine patients (64.2%) presented with abdominal pain and 1 (7.1%) had intestinal obstruction. The median serum albumin on diagnosis was 26.2 (IQR 4.61). Diagnosis was obtained via CT abdomen in 9 patients (64.3%) with the remaining diagnosed via laparoscopy. Twelve patients (85.7%) had history of PD peritonitis with a median of 2.57 episodes (IQR 1.99). Of these 12 patients, 9 (64.2%) developed peritonitis from different organisms while 3 (21.4%) were due to single organism or had sterile culture. Seven patients (50%) had used hypertonic PD solution prior to diagnosis. Half of the patients (50%) experienced complications e.g. malnutrition, intestinal obstruction and recurrent abdominal pain after diagnosis. Four patients (28.6%) passed away from EPS complications; with the survival time post diagnosis being 1, 5, 6 and 55 months respectively.

Conclusion:

PD patients diagnosed with EPS experience significant complications and have poor clinical outcomes. PD peritonitis is a major risk factor for EPS development. Therefore, timely PD peritonitis treatment is essential to prevent future EPS.

Submission ID: A-0157
Poster Viewing

Category: Paramedic
Topic: Peritoneal Dialysis

COVID-19 AND VACCINATION IN PERITONEAL DIALYSIS PATIENT: SINGLE CENTER EXPERIENCE

Wan Khadijah Abdul Rahman¹, Wan Haslina Wan Hassan¹, Norhazila Baharuddin¹, Nor Husa Azlida Husim¹, Theepa Nesam A/L Mariamutu², Wan Rohaslizan Wan Daud², Rozita Mohd²

¹Peritoneal Dialysis Unit, Department of Nursing, Hospital Canselor Tuanku Muhriz, Kuala Lumpur, Malaysia ²Department of Medicine, Faculty of Medicine, Universiti Kebangsaan Malaysia, Kuala Lumpur, Malaysia

Background:

Peritoneal dialysis patients are recommended to receive the COVID-19 vaccine, but there are insufficient data regarding vaccine in these patients. Due to their immunocompromised state, peritoneal dialysis patients are susceptible to COVID-19 infection and have an increased risk of developing severe complications if they contract the virus.

Method:

A retrospective study was conducted at Hospital Canselor Tuanku Muhriz between 2021 and 2022. All Data was collected from the database and medical record of our Peritoneal Dialysis Unit.

Results:

There was a total of 106 Peritoneal dialysis patients that was recruited in the study; 65.1% of them were male, and 65.1% of them had end-stage kidney disease as a result of diabetes. The mean age of our patients was 54.15 years, with a standard deviation of 14.27 years. The COVID-19 vaccination was administered to 84.9% of these patients; 48 patients received two doses of the vaccine, and 42 patients received three doses of the vaccine. Pfizer was the vaccination that the majority of our patients (64% of them) received. Approximately 11.3% of our patient population received a combination vaccine as their third dose. In the population that we were studying, 36.8% had been infected by COVID-19. Of those who had been infected, 31 had been vaccinated against the disease, while the remaining 8 had not. During the course of the study, none of our vaccinated patients passed away. According our study, 37.5% of our patient who were not vaccinated died due to COVID-19.

Conclusion:

The majority of our PD patients tolerated the COVID-19 vaccine well, and none of our vaccinated patients died from COVID-19. All PD patients should be vaccinated against SAR-COV-2 infection.

Submission ID: A-0158
Poster Viewing

Category: Doctor
Topic: Peritoneal Dialysis

FIRST-YEAR MORTALITY AND ITS PREDICTORS AMONG PERITONEAL DIALYSIS PATIENTS: A SINGLE CENTRE STUDY

Tee Tat Khoo¹, Kar Wah Fuah¹, Christopher Thiam Seong Lim², Fairol Huda Ibrahim¹, Bak Leong Goh¹

¹Nephrology Department, Hospital Sultan Idris Shah, Serdang

²Nephrology Unit, Department of Medicine, Hospital Sultan Abdul Aziz Shah, Universiti Putra Malaysia

Introduction:

Peritoneal dialysis (PD) is an effective home-based modality with advantages of greater flexibility and fewer dietary restrictions compared to hemodialysis. However, mortality in the first year of PD remains a major challenge to the increased PD uptake in our country. Hence, this study aims to evaluate first-year mortality and its predictors among peritoneal dialysis patients at our centre.

Methodology:

This is a retrospective study included all incident PD patients from April 2021 to March 2023 at Hospital Sultan Idris Shah, Serdang. The primary outcome was mortality within the first year of PD. Data were analysed using SPSS version 26.

Results:

A total of 223 patients were included in this study. The mean age of the patients was 51.9 ± 13.3 years, with mean BMI of 25.3 ± 4.6 kg/m². The majority were male (56%), Malay (62.3%), diabetic (72.2%). The mean duration of PD before death was 6.0 ± 3.7 months. Within the first year of PD initiation, 27 patients (12.1%) died, resulting in a mortality of 12.9 deaths per 100 patient-years. Of these deaths, 37% were brought in dead with an undetermined cause of demise followed by infection (29.6%), cardiovascular disease (25.9%) and withdrawal of dialysis (7.4%). The risk of mortality was highest in the first 3 months. Diabetes (HR 3.36, 95% CI 1.14-9.93), Indian ethnicity (HR 3.48, 95% CI 1.25-9.71), obesity (BMI >30kg/m²) (HR 6.83, 95% CI 2.57-18.15) and assisted PD (HR 9.13, 95% CI 3.01-27.73) were significantly associated with first-year mortality among PD patients.

Conclusions:

The first-year mortality rate in our centre aligns with the rate reported in the literature. Cardiovascular disease and infection are the leading causes of death within the first year of PD. Independent predictors of mortality include diabetes, obesity, ethnicity and assisted PD. Unlike hemodialysis patients, where the obesity paradox is often observed, our study does not demonstrate this phenomenon.

Submission ID: A-0159
Poster Viewing

Category: Doctor
Topic: Peritoneal Dialysis

INCIDENCE AND RISK FACTORS FOR EARLY TECHNIQUE FAILURE IN PERITONEAL DIALYSIS PATIENTS: A SINGLE CENTRE RETROSPECTIVE STUDY

Tee Tat Khoo¹, Kar Wah Fuah¹, Christopher Thiam Seong Lim², Fairol Huda Ibrahim¹, Bak Leong Goh¹

¹Nephrology Department, Hospital Sultan Idris Shah, Serdang ²Nephrology Unit, Department of Medicine, Hospital Sultan Abdul Aziz Shah, Universiti Putra Malaysia

Introduction:

Peritoneal dialysis (PD) patients are at a particularly high risk of experiencing early technique failure within the first year of PD initiation. It is associated with increased morbidity, mortality, and healthcare costs. Therefore, we aim to investigate the incidence and risk factors associated with early PD technique failure.

Methodology:

This retrospective study included all incident PD patients from April 2021 to March 2023 at Hospital Sultan Idris Shah, Serdang. Early technique failure is defined as a transfer to hemodialysis (HD) for 30 days or more, or death within the first year of starting PD. A multivariate Cox regression model was used to evaluate potential risk factors for early technique failure.

Results:

The study consisted of 223 patients, with a mean age of 51.9 ± 13.3 years. Among these patients, 139 (62.3%) were Malay, 161 (72.2%) had diabetes, and 89 (39.9%) were on assisted PD. Within the first year, 56 patients (25.1%) experienced technique failure, with a mean duration of PD before drop-out of 6.1 ± 3.4 months. Of these, 51.8% were due to transfer to HD, and 48.2% were due to death. The main reasons for transfer to HD were PD-associated peritonitis (62.1%) and mechanical problems (27.6%). Independent risk factors for early technique failure included Indian ethnicity (HR 2.98, 95% CI 1.40-6.33), obesity with a BMI >30 kg/m² (HR 2.83, 95% CI 1.36-5.91), and assisted PD (HR 2.38, 95% CI 1.20-4.70). The risk of early PD discontinuation due to PD-associated peritonitis was higher during the 6 to 12 months of PD.

Conclusions:

Early technique failure within the first year of PD occurs in one-quarter of PD patients and is associated with ethnicity, obesity, and the need for PD assistance. The early technique failure rate at our center is comparable to those reported in studies from Singapore, Australia, and New Zealand.

Submission ID: A-0160
Oral Presentation

Category: Doctor
Topic: Others : CKD

IMPACT OF SGLT-2 INHIBITORS (SGLT2I) ON CHRONIC KIDNEY DISEASE (CKD) PATIENTS DURING RAMADAN MONTH: A MULTICENTRE STUDY

Tiong KU¹, Bee BC¹, Lee FY², Siti HM¹, Liew HN¹, Gabriel K¹, Suryati Y³

Department of Nephrology, Hospital Selayang, Clinical Research Centre, Hospital Selayang
Nephrology Department, Hospital Kuala Lumpur

Introduction:

The SGLT-2 inhibitor, a "magic bullet" for halting CKD progression, offers benefits beyond glycemic control. While studies show SGLT2i is safe for diabetics during fasting, data for CKD patients is limited. This study aimed to investigate its effects on fasting CKD patients.

Methodology:

This multicentre prospective cohort study involved CKD patients on SGLT2i (Dapagliflozin or Empagliflozin) for at least 3 months, who intended to fast during Ramadan. The control group included patients on SGLT2i not participating in Ramadan fasting. Data on blood pressure, renal profile, and blood ketones were collected before and during fasting and analysed using SPSS Version 23.0

Results:

A total of 60 subjects were recruited, with 29 (48.3%) in the fasting group. Forty-five (75%) were diabetic, and the majority (52, 86.7%) were also on renin-angiotensin system inhibitors (RASi). Baseline eGFR was 56.48 ± 34.71 ml/min/1.73m² for the fasting group and 46.52 ± 23.37 ml/min/1.73m² for the control group. No significant differences were observed between fasting and non-fasting groups in systolic blood pressure (147.7 ± 18.92 mmHg vs 149.7 ± 19.79 mmHg, $p=0.839$), diastolic blood pressure (83.82 ± 10.36 mmHg vs 93.07 ± 10.08 mmHg, $p=0.782$), or eGFR change (-6.07 ± 1.27 ml/min/1.73m² vs -4.29 ± 1.18 ml/min/1.73m², $p=0.308$). Most patients had low ketone levels (0.22 ± 0.21 mmol/L). Two subjects (6.9%) in the fasting group had serum ketone levels above 0.6 mmol/L, compared to one subject (3.2%) in the control group, but this was not statistically significant ($p=0.606$). No genital urinary infections or admissions for diabetic ketoacidosis were reported during the study period.

Conclusion:

Our study confirms the safety and efficacy of SGLT2 inhibitors during Ramadan for CKD patients, suggesting their suitability as a treatment option without additional risks.



Submission ID: A-0161
Poster Viewing

Category: Doctor
Topic: Glomerulonephritis

CLINICAL CHARACTERISTICS, PREDICTIVE RISK FACTORS AND 3-YEARS OUTCOMES OF IGA NEPHROPATHY IN SABAH: A RETROSPECTIVE OBSERVATIONAL STUDY

Qhairyl Iyman¹, Tan Wei-Wang Benjamin¹, Anthony Chan Yon Quan¹, Chan Fei Sia¹, Vinoth Kasirajan¹, Wong Koh Wei¹

¹Nephrology Unit, Department of Medicine, Hospital Queen Elizabeth

Introduction:

IgA nephropathy (IgAN) is the most common primary glomerular disease worldwide with significant heterogeneity in terms of epidemiology, clinical presentation and outcomes. We aim to better understand the clinical characteristics, predictive factors and outcomes of patients with biopsy-proven IgAN.

Methods:

A retrospective observational study was carried out among all biopsy-proven IgAN patients with complete three-year medical records between 2001 to 2020. Demographic and clinical data (baseline proteinuria, Oxford Classification of IgAN and 1-year chronic eGFR slope) were analysed to observe for any associations with disease progression, defined as eGFR decline above 40% and progression to end-stage kidney disease (ESKD)

Results:

In total, 35 patients were analysed. The study cohort was predominantly female (83%) and largely comprised of Sabah natives (77%). The mean age was 32.7 years (± 12.3) with a median eGFR at biopsy of 88ml/min/1.73m² (IQR 61-120). The most common clinical presentation was asymptomatic urinary abnormalities (57%) followed by nephrotic syndrome (29%). Baseline proteinuria of >3g/day was 46%. The median eGFR slope within the first year post biopsy was -2.67 (IQR -9.3 to 9.3). An eGFR decline above 40% over 3 years was observed in 6 patients (17.1%), with 3 patients (8.6%) progressing to ESKD. Disease progression was significantly associated with male gender, presence of crescents (C) or tubular atrophy/interstitial fibrosis (T) on histology, omission of renin-angiotensin-aldosterone system (RAAS) blockade, and baseline proteinuria more than 2g/day ($p < 0.05$). RAAS blockade use was observed in 83% of patients while immunosuppression was only used in 46% of patients.

Conclusion:

Our study demonstrated several potential risk factors predicting disease progression in patients with biopsy-proven IgAN, which include male gender, baseline proteinuria over 2g/day, histological evidence of crescents (C) or tubular atrophy/interstitial fibrosis (T) and RAAS blockade discontinuation. A larger prospective study with a longer duration follow-up is needed to validate the above findings.

Submission ID: A-0162
Oral Presentation

Category: Doctor
Topic: Transplant

PREDICTIVE VALUE OF KIDNEY DONOR PROFILE INDEX WITH BIOPSY PROVEN ACUTE REJECTION AND ALLOGRAFT SURVIVALS IN MALAYSIA.

Tee Meng Kang^{1,2}, Yee Seow Yeing¹, Mohamad Zaimi Wahab¹, Bee Boon Cheak², Suryati binti Yakob^{1,2}, Rosnawati Yahya¹, Wong Hin Seng²

¹Department of Nephrology, Hospital Kuala Lumpur ²Department of Nephrology,
Hospital Selayang

Introduction:

The Kidney Donor Profile Index(KDPI) was introduced by Organ Procurement and Transplantation Network(OPTN) to guide decision on dual kidney allocation and acceptance of deceased donor kidneys. Higher KDPI kidneys are associated with poorer graft outcomes and higher Biopsy Proven Acute Rejection (BPAR).

Objectives:

To determine the association of KDPI and BPAR and graft survival in local cohort.

Methods:

Data of kidney transplantations performed between 2015 and 2022 was extracted from the Ministry of Health Transplant Annual Audit. Demographics were analysed using descriptive statistics, whereas KDPI and BPAR were analysed using SPSS version 27.

Results:

There were 207 brain-death deceased donors (DD) with kidneys retrieved during this period. The mean age, height and weight of the DD were 36(\pm 14); 165(\pm 7.9) cm; 68.8(\pm 15.2) kg respectively. The majority (43%, n=92) were Chinese and Malay made up 40%(n=87). The mean terminal serum creatinine was 117 \pm 76.9 μ mol/L. Thirty-seven (17%) donors had hypertension and five (2.3%) had diabetic mellitus. The commonest cause of death was head trauma 132(61%) followed by stroke 57(26%), aneurysmal bleed 12(5.6%) and hypoxia 6(2.85). The mean KDPI was 37.8 \pm 25.5. Sixty-nine (33%), thirty-five (17%), ninety-four (45%) and nine (4%) were in the categories of KDPI <20%; KDPI 21%-34%; KDPI 35-85% and KDPI >85% respectively. Most (58.5%, n=121) had immediate graft function and 40%(n=83) had delayed graft function. Three (1.4%) had primary non-function. Lower KDPI significantly predicted immediate graft function, $p=0.002$. Thirty-five (17%) had BPAR at one-year post-transplant and the majority were acute cellular rejection (77%). Antibody-mediated rejection rate was 14% and 8% were mixed rejection. KDPI was not associated with BPAR, $p=0.837$. The mean deceased allograft survival rate at 1-year, 3-years and 5-years were 93.6%, 88.1%, 78.1% respectively, however no significant correlation with KDPI, $p=0.338$.

Conclusion:

When using the US KDPI in local population, lower KPDI predicted the immediate graft outcome but not BPAR. Graft survival was comparable to other countries.



Submission ID: A-0163
Poster Viewing

Category: Doctor
Topic: Transplant

MYCOBACTERIUM TUBERCULOSIS INFECTION AFTER KIDNEY TRANSPLANTATION - CASE SERIES

LEE HUI LING, CHUA WEI SENG, PHANG YINN RHU

Kementerian Kesihatan Malaysia

Introduction:

Tuberculosis (TB) in kidney transplant recipients is an important opportunistic infection with morbidity and mortality among post-kidney transplant recipients. It most commonly affects the lungs, can also affect other organs including the genitourinary system.

Methods:

The cases were managed collaboratively with in-house nephrologists, utilizing clinical information from medical case notes.

Results:

Case1:

36-year-old gentleman of end-stage renal disease with peritoneal dialysis vintage of 4 years underwent kidney transplantation from a living donor (his mother). He had immediate graft function. He received tacrolimus and mycophenolate mofetil as immunosuppressants. His TB quantiferon test prior to transplantation was negative. 6 months postoperatively, he developed bilateral lower limb swelling associated with acute allograft dysfunction. Chest X-ray showed persistent unilateral pleural effusion. Diagnostic tests revealed positive acid-fast bacilli in sputum and Mycobacterium complex in urine and pleural fluid. He was diagnosed with pulmonary and genitourinary tuberculosis and started on anti-TB treatment. However, the acute insult led to renal allograft failure, necessitating a return to dialysis.

Case 2:

57-year-old gentleman underwent kidney transplantation from a living donor in 2020 was discharged well with immediate graft function. He was readmitted 4 years postoperatively with symptoms of prolonged cough, diarrhea and nocturnal fever. CT images were suggestive of active lung infection and signs of intestinal tuberculosis. Sputum revealed acid-fast bacilli stain. Treatment was started which later on led to drug induced transaminitis, requiring adjustment to loose pills of isoniazid, ethambutol, levofloxacin, and rifampicin. Patient survived and renal graft function remained stable. Tacrolimus dosage needed adjustment because of drug-drug interaction with anti-TB medications.

Conclusions:

Mycobacterium infection poses significant challenge for solid organ transplant recipients. The above cases show different outcomes of treatment on mycobacterium infection post kidney transplantation. Prompt diagnosis and ability to manage drug-drug interactions between immunosuppressive therapy and anti-TB medications may alter the outcome.



Submission ID: A-0164
Poster Presentation

Category: Doctor
Topic: Peritoneal Dialysis

IMPACT OF CONTINUOUS QUALITY IMPROVEMENT PROGRAMME ON PRE-PD PERITONITIS RATE

Nge Chee Seng, Chew Chia Ling, Nuruljannah Yaacob, Devan a/l Raja Segar, Wan Hazlina Wan
Mohamad, Azrini Binti Abdul Aziz, Sunita Bavanandan

Department of Nephrology Hospital Kuala Lumpur

Introduction:

The 2022 update of the International Society of Peritoneal Dialysis (ISPD) peritonitis guideline introduced the concept of pre-peritoneal dialysis (pre-PD) peritonitis, defined as peritonitis occurring after Tenckhoff catheter insertion and before peritoneal dialysis (PD) initiation. Responding to a surge in pre-PD peritonitis cases, a comprehensive Continuous Quality Improvement (CQI) program was implemented in May 2022. Measures included meticulous auditing of the scrubbing procedure, changing the sterilization solution, the dialysate for flushing, replacing the OT's high-efficiency particulate air filter, and transitioning from povidone iodine to chlorhexidine solution for skin sterilization; all measures were implemented by August 2022. This study aimed to evaluate the efficacy of CQI measures on pre-PD peritonitis incidence rates and patient outcomes.

Method:

Data were collected from January 2022 to December 2023 on patients who underwent TK insertion by nephrologists under peritoneoscope in Hospital Kuala Lumpur. We only included patients who had their catheter inserted for the first time. Cases of pre-peritoneal dialysis (Pre-PD) peritonitis as defined by ISPD guideline along with their outcomes, were recorded.

Result:

In our study of 185 patients, a notable difference in the frequencies of Pre-PD peritonitis was observed following the implementation of CQI measures. Between January and July 2022, 20 cases (36.3%, N=55) were documented, contrasting with 9 cases (6.9%, N=130) from September 2022 to December 2023 ($p < 0.001$). Out of 29 patients who developed pre-PD peritonitis, 11 (37.9%) required hospital admission, 4 (13.7%) required removal of TK, and 3 (10.3%) patients required conversion to haemodialysis, and no mortalities were recorded.

Conclusion:

Pre-PD peritonitis is often underestimated, as PD units typically record peritonitis post-training completion. This study sheds light on its burden and underscores the CQI program's importance in addressing infection-related complications post-TK insertion. Although a notable decrease occurred, the incidence remains high, underscoring the necessity for further research and sustained CQI endeavors.



Submission ID: A-0165
Poster Viewing

Category: Doctor
Topic: Haemodialysis

OUTCOME OF TUNNELED CUFFED CATHETER AS HAEMODIALYSIS ACCESS: A SINGLE CENTRE EXPERIENCE IN A TERTIARY CENTRE IN MALAYSIA

Say Chiew Ng¹, Nur Izzati Nabilah¹, Kar Wah Fuah¹, Fairol Huda Ibrahim¹, Bak Leong Goh¹, Christopher Thiam Seong Lim²

¹ Department of Nephrology, Hospital Sultan Idris Shah Serdang, Malaysia

² Nephrology Unit, Faculty of Medicine and Health Science, University Putra Malaysia, Malaysia

Introduction:

Tunneled cuffed catheter (TCC) is a lifeline as haemodialysis access in patients with vascular exhaustion. We described the characteristics, outcomes, and associated risks of TCC in haemodialysis patients in our centre.

Methodology:

We retrospectively studied a cohort of patients on haemodialysis having TCC placement from June 2021 until June 2023 in Hospital Sultan Idris Shah Serdang. We analysed and reported the technique survival (catheter dysfunction and catheter dislodge) and infective outcomes.

Results:

A total of 118 patients were identified and followed up. The mean age was 56.5 +/- 11.8 years with 67 Male (56.8%) and 78 Malay (66.1%). Among them 89 (75.4%) have diabetes mellitus, 113 (95.8%) have hypertension, and 45 (38.1%) have heart disease. The mean dialysis vintage is 3.8 +/- 3.9 years. The indications for TCC placement were exhausted vascular access (62.7%) and awaiting fistula creation (37.3%). 19 patients (16.1%) developed infection within 6 months after catheter placement in which 14 (11.9%) had catheter-related blood stream infection and 5 (4.2%) had catheter exit site infection. 14 patients (11.9%) had catheter dysfunction while 8 patients (6.8%) had dislodged catheter. Occurrence of catheter dysfunction and catheter dislodged was not different between patients with good vasculature and those with exhausted vascular access (p=0.808). Age above 55 years was associated with occurrence of catheter infection (p=0.004). All-cause mortality was 4.2%. 13 (29.5%) out of 44 patients were successfully converted to fistula use within 6 months after TCC placement.

Conclusion:

TCC in our centre showed 6 months technique survival rate of 81.3% with infective rate of 16.1%. The rate of technique survival is similar in patients with and without vascular exhaustion. Nevertheless, other kidney replacement therapy options should be explored in this group of patients.



Submission ID: A-0166
Poster Viewing

Category: Doctor
Topic: Others : COMPLEMENT MEDIATED
THROMBOTIC MICROANGIOPATHY (CM-
TMA)

MORE THAN MEETS THE EYE: A CHALLENGING CASE OF COMPLEMENT MEDIATED THROMBOTIC MICROANGIOPATHY (CM-TMA)

Jonathan Jentek Chiong¹, Yon Quan Chan¹, Qhairyl Ilyman bin Ahmad Shanizza¹, Benjamin Wei Wang Tan¹, Hemlata Kumari A/P Gnanasegaram², Koh Wei Wong¹

¹ Renal Division, Department of Medicine, Hospital Queen Elizabeth, Sabah, Malaysia
² Pathology Division, Hospital Kuala Lumpur, Malaysia

Introduction:

Complement-mediated thrombotic microangiopathy (CM-TMA) is a rare disorder that is characterized by microangiopathic haemolytic anaemia (MAHA), thrombocytopenia, and acute kidney injury, as a result of dysregulated complement activation of the alternative pathway. It is often triggered by many factors such as sepsis, surgery, and pregnancy. Extra-renal manifestations are generally rare (~20%). We report an atypical case presentation of CM-TMA.

Case Report:

Mr A, a 38-year-old gentleman with no prior medical illness, presented with confusion, generalised jerky movements, blurring of vision, lower limb oedema, and kidney impairment. Investigations revealed acute kidney injury, requiring intermittent haemodialysis sessions, as well as nephrotic-range proteinuria, full blood picture demonstrated the presence of schistocytes and thrombocytopenia. Magnetic resonance imaging of brain revealed bilateral restricted thalamic lesions. Ophthalmic evaluation showed bilateral eye central retinal vein occlusion with maculopathy. Given the initial clinical suspicion of thrombotic thrombocytopenic purpura, patient received therapeutic plasma exchanges, intravenous rituximab, and pulsed corticosteroids. A disintegrin and metalloproteinase with thrombospondin motifs 13 (ADAMTS 13) was sent before initiation of plasma exchange sessions; however, levels were normal. Workup for secondary causes of TMA were negative. A kidney biopsy was performed which demonstrated features of chronic TMA with no hypertensive-related vascular changes. Both complement genetic testing and anti-complement Factor H (CFH) were negative. There was evidence of partial kidney recovery with serum creatinine stabilising between 120 to 130 μ mol/L and proteinuria quantification of less than 0.3g/day. He continues to receive optimised dosing of renin-angiotensin system blockade therapy. Visual acuity remained limited, requiring visual rehabilitation.

Conclusion:

This condition is often associated with genetic defects within the alternative pathway or with the presence of autoantibodies against complement factors. It is noteworthy that about 30–50% of patients do not have a positive genetic testing result, indicating potential gaps that exist in our current understanding of the pathophysiology and prognosis of CM-TMA.



Submission ID: A-0167
Poster Viewing

Category: Doctor
Topic: Glomerulonephritis

LUPUS NEPHRITIS COMPLICATED WITH PULMONARY EMBOLISM AND INTRAHEPATIC IVC THROMBOSIS - CASE REPORT

CHUA WEI SENG, LEE HUI LING, PHANG YINN RHU

Introduction:

Lupus nephritis has been identified as one of the most common types of adult glomerulonephritis. Patients with nephrotic syndrome are prone to thrombosis, therefore, early diagnosis is crucial to reduce mortality burden. We present a case of lupus nephritis with concomitant pulmonary embolism and intrahepatic thrombosis as its rare complications.

Methods:

The case was managed collaboratively with in-house nephrologists, utilizing clinical information from medical case notes.

Results (Case Description):

A 23-year-old Malay lady presented with 2 months history of lethargy, reduced effort tolerance, intermittent fever, pleuritic chest pain, unspecific abdominal discomfort and frothy urine. Physical examination revealed she had alopecia, bilateral lower limb swelling and facial puffiness. Serial investigations were carried out, her initial blood test showed pancytopenia and significant proteinuria. She fulfilled SLICC criteria and diagnosed with systemic lupus erythematosus. The ANA, Anti-dsDNA and ENA were positive. 24 hours urine protein quantification was 3.32g/day. Subsequently, renal biopsy was done and reported as lupus nephritis class V (diffuse membranous pattern). Her initial chest radiograph showed bilateral blunted costophrenic angle and presence of minimal bilateral pleural effusion. Throughout the admission, her symptom of pleuritic chest pain persisted, and subsequently, she had desaturation and required oxygen therapy. The finding was inconsistent with mild finding in chest radiograph. Computed tomography pulmonary angiogram (CTPA) and Contrast-enhanced computed tomography (CECT) thorax were done immediately and showed evidence of right descending pulmonary embolism and incidental finding of intrahepatic IVC thrombosis. Anticoagulant treatment was commenced alongside with immunosuppressive therapies. She subsequently improved and discharged well.

Conclusion:

The clinical manifestations of lupus nephritis are diverse, including extensive thrombosis in this case. Patients with nephrotic syndrome are prone to develop pulmonary embolism and venous thrombosis, and sometimes may present as its first complication. Hence, a strong clinical suspicion and prompt diagnosis is important to achieve a better outcome.



Submission ID: A-0168
Poster Viewing

Category: Doctor
Topic: Mineral Bone Disease

IMPACT OF CINACALCET ON SECONDARY HYPERPARATHYROIDISM AND PATIENT OUTCOMES IN HEMODIALYSIS PATIENTS. A MULTICENTRE EXPERIENCE.

Mohd Ashraf Ghazali¹, Fariz Safhan M.N¹, Wen Jet Choong², Chee Eng Chan³, M. Kamil Ahmad⁴.

¹Department of Nephrology, Hospital Tengku Ampuan Afzan, Pahang, Malaysia.

Background:

Cinacalcet is used to manage Secondary Hyperparathyroidism by lowering parathyroid hormone levels resistant to VDRA and phosphate binders. Calcimimetics targets calcium sensing receptors without affecting calcium and phosphorus level. This study investigates its effectiveness in controlling PTH levels and its impact on patient outcomes.

Methodology:

This retrospective observational study. Patients aged > 18 years old were included where baseline characteristics, relevant histories, and laboratory values were collected from seven participating centers. Primary outcomes include serum PTH levels, calcium, ALP and phosphate concentrations. Secondary outcomes are hospitalization rates, cardiovascular events and rates of parathyroidectomy at the end of 52 weeks.

Results:

Forty patients with SHPT treated with Cinacalcet with mean age of 56 years old were included. The primary diseases leading to ESKD were unknown (37.5%), Hypertension (30%), DKD (27.5%), and Chronic GN (5%). Mean dialysis vintage was 9.6 years. The mean iPTH level at start was 1109 pg/ml and 843 pg/ml at 52 weeks. The mean change in iPTH level at 52 weeks of treatment was -298.4pg/ml ($p < 0.001$) with 15% of patients achieving target iPTH of less than 350 pg/ml. The mean calcium level at the start was 2.46 mmol/l and mean level at 52 weeks of 2.37 mmol/l. The mean phosphate level at the start of treatment was 2.33mmol/l and 2.27 mmol/l at 52 weeks. The mean ALP level was 199 IU/L at start and 221 IU/LI at 52 weeks. There were no statistically significant differences in outcomes between Cinacalcet dose used (25mg and 50mg OD) on MACE, hospitalization, mortality, and parathyroidectomy rate at 52 weeks of treatment.

Conclusions:

Cinacalcet provides a viable option to lower iPTH levels to target and improves calcium-phosphorus control although it carries no statistically significant improvement in patient survival outcome.

Submission ID: A-0169
Poster Viewing

Category: Doctor
Topic: Haemodialysis

VASCULAR ACCESS SURVIVAL AND OUTCOMES: A SINGLE CENTER EXPERIENCE.

Durga Arinandini ARIMUTHU¹, Govin Saral Malar GOVINDAH¹, Lily MUSHAHAR¹

¹Department of Nephrology, Hospital Tuanku Ja'afar, Seremban, Negeri Sembilan, Malaysia

Introduction:

Arteriovenous fistula (AVF) is the lifeline of hemodialysis (HD) patients and has many challenges in maintaining its patency and longevity. In this paper, we aim to study the AVF patency and failure rates, risk factors for AVF failure, frequency of interventions, and outcomes of AVF.

Methodology:

A retrospective cross-sectional study was done in prospective hemodialysis (HD) patients in Hospital Tuanku Ja'afar, Seremban from the year 2021 until 2023. Demographic data, laboratory dialysis adequacy, volume status and fistula surveillance data were collected.

Results:

A total of 130 patients were recruited with 63.84% utilizing AVF as HD access. 70 (84.3%) patients who utilized AVF more than 1 year were included in this study. 86.8% had BCF (brachiocephalic), 5.9% were on BBF (brachio basilic fistula) while 7.5% utilized RCF (radio cephalic). 42 (60%) of the patients were male, 39 (55.7%) had diabetes while 59 (84.3%) were hypertensive. The dialysis vintage was 7.5 ± 0.8 years with AVF patency of 6 ± 0.3 years. Fistulogram were done for 12 patients (17.1%) with interventions in 10 of those (14.3%). The intervened patients were primarily on BCF (70%) followed by RCF (20%) and BBF (10%). Patency was maintained for a median of 2.5 ± 0.7 years. Reintervention was done in 2 patients who were on BCF with an average interval between interventions being 36 months. AVF failure was seen in 8 (11.4%) of cases out of which two had undergone interventions. The AVF that failed were BCF and RCF respectively. The age, vintage, pre and post dialysis blood pressure, intradialytic weight gain, ultrafiltration rate, hemoglobin levels, hematocrit, platelet, albumin levels and fistula venous outflow rate were not significantly associated with AVF failure in this cohort.

Conclusion:

In this single centre study with a small, intervened cohort, the patency was maintained for slightly longer than reported along with lower failure rates in general



Submission ID: A-0170
Poster Presentation

Category: Doctor
Topic: Mineral Bone Disease

IMPACT OF KIDNEY TRANSPLANT ON MINERAL BONE DISEASE — A NINE-YEAR RETROSPECTIVE COHORT STUDY AT A TERTIARY CENTRE

Guo Jian LEON¹, Jun Min EM¹, Nur Raziana ROZI³, Chee Keong THYE², Yee Wan LEE², Kok Peng NG², Soo Kun LIM², Maisarah JALALONMUHALI²

¹ Division of Nephrology, Department of Medicine, University of Malaya Medical Centre, Kuala Lumpur, Malaysia

² Division of Nephrology, Department of Medicine, University of Malaya, Kuala Lumpur, Malaysia

³ Division of Nephrology, Department of Medicine, International Islamic University Malaya, Kuantan, Malaysia

Introduction:

The progression of chronic kidney disease (CKD) into end-stage kidney disease and eventual kidney transplantation is linked to substantial changes in bone mineral metabolism, predisposing to bone-related complications including osteoporosis and fractures. Understanding the bone profile in kidney transplant patients could improve post-transplant care and long-term outcomes.

Methodology:

This was a retrospective study at University Malaya Medical Centre (UMMC), involving all kidney transplant recipients from January 2015 to December 2023. Patients without baseline intact parathyroid hormone (iPTH) levels or who had graft failure within 1 year were excluded. All baseline characteristics, medications, and pre and post-transplant bone mineral profiles were collected from electronic medical records and analysed using SPSS v29.0.2.

Results:

179 patients were included with a mean age of 40.6±11.0 years old (57% males, 43% females). The median dialysis vintage was 18 months with 19% underwent pre-emptive transplant. Before the transplant, 57.0% on Calcium carbonate, 51.4% on vitamin D receptor analogues, 26.3% on Sevelamer, 5.6% on Cinacalcet, 2.2% on Lanthanum and 0.6% on Sucroferric oxyhydroxide. All patients received induction Methylprednisolone during the transplant. At 12 months post-transplant, 90% remained on Prednisolone at a median dose of 5.0mg. Parathyroidectomy was performed on 2 patients (1.1%) before transplant and another 2 (1.1%) after transplant. No patient had a fracture post-transplant during the study period. Biochemically, mean iPTH (71.1±66.7 pmol/L), calcium (2.3±0.2 mmol/L), phosphate (1.9±0.5 mmol/L) and haemoglobin (11.0±1.8 g/dL) were significantly improved from pre-transplant to 2 years post-transplant (P<0.001), with iPTH and calcium showed improvement as early as 3 months (19.4±17.3 pmol/L, 2.4±0.2 mmol/L, respectively) and maintained thereafter. Both phosphate and haemoglobin levels continuously improved up to 2 years post-transplant (P<0.05).

Conclusion:

Our study showed significant improvements in biochemical bone profile and haemoglobin levels as early as 3 months post-transplant, which continuously improve or maintain up to 2 years post-transplant.



Submission ID: A-0171
Oral Presentation

Category: Doctor
Topic: Basic Science

IMPACT OF TRANSITIONING TO CKD-EPI 2021 EQUATION ON ESTIMATED GLOMERULAR FILTRATION RATE AND CKD STAGING: A MULTI-ETHNIC STUDY IN UMMC

Guo Jian LEON¹, Maisarah JALALONMUHALI², Wan Ahmad Hafiz WAN MD ADNAN², Shian Feng CHENG², Pavai STHANESHWAR³, Soo Kun Lim²

¹Division of Nephrology, Department of Medicine, University of Malaya Medical Centre, Kuala Lumpur, Malaysia

²Division of Nephrology, Department of Medicine, University of Malaya, Kuala Lumpur, Malaysia

³Department of Pathology, University of Malaya, Kuala Lumpur, Malaysia

Introduction:

Understanding the transition from the CKD-EPI 2009 to the CKD-EPI 2021 equation is crucial for clinicians, researchers, and healthcare policymakers, as it affects diagnostic thresholds, disease staging, clinical decisions, and risk stratification in chronic kidney disease (CKD) patients. In this study, we aim to evaluate the impact of transitioning from the CKD-EPI 2009 equation to the CKD-EPI 2021 race-free equation on the KDIGO staging of CKD patients.

Methods:

This study included 10389 laboratories reporting eGFR_r from CKD patients in Universiti Malaya Medical Centre (UMMC) in 2022. CKD-EPI 2009 versus 2021 equation was the exposure variable. Difference in mean eGFR and number (%) of patients reclassified to a different eGFR category were analysed and compared within different ethnicity group in Malaysia using SPSS v29.0.2.

Results:

In comparison to the baseline of 37.98 ml/min/1.73m² using 2019 equation, the mean eGFR derived from 2021 equation was 2.48 ml/min/1.73m² (6.5%) higher, exhibiting consistent elevation across all ethnicity groups. Notably, the "Other" ethnicity group (e.g., Sikh, indigenous, foreigner), comprising 182 patients (1.752%), demonstrated the highest increase in mean eGFR, with a notable rise of 3.97 ml/min/1.73m² upon transitioning to the 2021 equation. Overall, 16.3% of the study sample underwent reclassification to a higher CKD stage based on the revised equation. Moreover, the analysis revealed that the highest proportion (21.41%) of patients were reclassified from CKD stage G3a to G2, while 11.50% of patients were reclassified from CKD stage G4 to G3b, suggesting potential implications for disease progression monitoring and management intensity.

Conclusion:

The CKD-EPI 2021 equation consistently yielded higher eGFR compared to the 2009 equation across all ethnicity groups studied. This notable increase in eGFR values derived from the 2021 equation holds significant clinical implications for both the diagnosis and long-term care of patients with CKD.



Submission ID: A-0172
Poster Viewing

Category: Doctor
Topic: Mineral Bone Disease

IMPACT OF CINACALCET ON SECONDARY HYPERPARATHYROIDISM AND PATIENT OUTCOMES IN HEMODIALYSIS PATIENTS. A MULTICENTRE EXPERIENCE.

Mohd Ashraf Ghazali¹, Fariz Safhan M.N¹, Wen Jet Choong², Chee Eng Chan³, M. Kamil Ahmad⁴.

¹Department of Nephrology, Hospital Tengku Ampuan Afzan, Pahang, Malaysia.

Background:

Cinacalcet is used to manage Secondary Hyperparathyroidism by lowering parathyroid hormone levels resistant to VDRA and phosphate binders. Calcimimetics targets calcium sensing receptors without affecting calcium and phosphorus level. This study investigates its effectiveness in controlling PTH levels and its impact on patient outcomes.

Methodology:

This retrospective observational study. Patients aged >18 years old were included where baseline characteristics, relevant histories, and laboratory values were collected from seven participating centers. Primary outcomes include serum PTH levels, calcium, ALP and phosphate concentrations. Secondary outcomes are hospitalization rates, cardiovascular events and rates of parathyroidectomy at the end of 52 weeks.

Results:

Forty patients with SHPT treated with Cinacalcet with mean age of 56 years old were included. The primary diseases leading to ESKD were unknown (37.5%), DKD (27.5%), Hypertension (30%) and Chronic GN (5%). Mean dialysis vintage was 9.6 years. The mean iPTH level at start was 1109 pg/ml and 843 pg/ml at 52 weeks. The mean change in iPTH level at 52 weeks of treatment was -298.4pg/ml ($p < 0.001$) with 15% of patients achieving target iPTH of less than 350 pg/ml. The mean calcium level at the start was 2.46 mmol/l and mean level at 52 weeks of 2.37 mmol/l. The mean phosphate level at the start of treatment was 2.33mmol/l and 2.27 mmol/l at 52 weeks. The mean ALP level was 199 IU/L at start and 221 IU/LI at 52 weeks. There were no statistically significant differences in outcomes between Cinacalcet dose used (25mg and 50mg OD) on MACE, hospitalization, mortality, and parathyroidectomy rate at 52 weeks of treatment.

Conclusions:

Cinacalcet provides a viable option to lower iPTH levels to target and improves calcium-phosphorus control although it carries no statistically significant improvement in patient survival outcome.



Submission ID: A-0173
Poster Viewing

Category: Doctor
Topic: Haemodialysis

THERAPEUTIC ENDOVASCULAR ANGIOPLASTY BALLOON TAMPONADE IN CATHETER RELATED LEFT BRACHIOCEPHALIC VEIN PERFORATION

Chye Chung GAN^{1,2}, Soo Ying YEW¹, Wei Lin NG^{3,4}, Kin Wong CHAN³, Daoyao LING⁵, Ahmad Rafizi Hariz Bin RAMLI^{5,6}

1. Division of Nephrology, Department of Medicine, University Malaya Medical Centre, Kuala Lumpur, Malaysia.
2. Division of Nephrology, Department of Medicine, Faculty of Medicine, University of Malaya, Malaysia.
3. Department of Biomedical Imaging, University Malaya Medical Centre, Kuala Lumpur, Malaysia.
4. Department of Biomedical Imaging, Faculty of Medicine, University of Malaya, Malaysia.
5. Vascular Unit, Division of General Surgery, Department of Surgery, University Malaya Medical Centre, Kuala Lumpur, Malaysia.
6. Vascular Unit, Division of General Surgery, Department of Surgery, Faculty of Medicine, University of Malaya, Malaysia.

Introduction:

Catheters used for hemodialysis (HD) treatment is still commonly practice. The dilator with large caliber is used to insert such catheter, which in turn post risk of complications such as vessel injury especially insertion via left-sided veins. We herein report a case of left brachiocephalic (BCV) perforation treated successfully with only balloon tamponade.

Methods and Results:

An 88-year-old man, on regular HD for the past 1-year, had multiple visits to hospital for dislodge right internal jugular catheter (IJC). Left snuffbox fistula created 8 months ago, but not mature with multiple short segment stenosis. He had left IJC inserted this time however the tip was malpositioned at the entry point of azygous vein (Fig.1a). He was scheduled for left IJC adjustment and conversion to left IJ-TCC either with or without central venoplasty. Pre-procedure USG scan showed right internal jugular vein total occlusion with collaterals. Nitinol 0.035" guidewire inserted via the blue lumen and diagnostic central venogram performed via red lumen of the IJC with noted stenosis at right BCV (Fig.1b). The IJC was exchange with 10Fr vascular sheath via re-route technique. When advancing the vascular sheath under real-time fluoroscopic guidance with tip pointing slightly centrally, patient turned his head to the left suddenly and brief give-away felt. Instantaneously, perforation was suspected and central venogram via the sheath confirmed it (Fig.1c). Semi-compliant angioplasty balloon 10x40mm applied with multiple inflation with short 3-4 minutes interval for 20 minutes while waiting for ultra non-compliant 14x40mm angioplasty balloon. The 14x40mm balloon was inflated for a total of 7 minutes and the perforation sealed (Fig.1d)

Conclusion:

The case underscores the significance of early recognition and prompt intervention. The successful use of balloon tamponade as a minimally invasive therapeutic approach in this scenario suggests its potential as an effective and safe solution for managing similar complications.

Submission ID: A-0174
Oral Presentation

Category: Paramedic
Topic: Others : Diabetic Kidney Disease

COMPARATIVE PERFORMANCE OF TNFR1, DKK-3, BCL3, AND PROTEINURIA AS A SCREENING TOOL FOR DIABETIC KIDNEY DISEASE: A CASE-CONTROL STUDY

M.Zulkarnain Bidin¹, Anim Md Shah^{1, 2}, J Stanslas³, Fauzah Abd Ghani⁴, Bak Leong Goh², Kah Wah Fuah², Christopher Thiam Seong Lim^{1, 2}

¹Nephrology Unit, Department of Medicine, Faculty of Medicine and Health Sciences, Universiti Putra Malaysia, Serdang, Selangor, Malaysia ²Nephrology Unit, Serdang Hospital, Selangor, Malaysia ³Pharmacotherapeutics Unit, Department of Medicine, Faculty of Medicine and Health Sciences, Universiti Putra Malaysia, 43400 Serdang, Selangor, Malaysia ⁴Pathology Department, Faculty of Medicine and Health Sciences, Universiti Putra Malaysia, Serdang, Selangor, Malaysia

Background:

Diabetic kidney disease (DKD) is a major complication of diabetes mellitus (DM), highlighting the need for early detection and intervention. This study aimed to evaluate the performance of three novel biomarkers, sTNFR1, uDKK-3, and sBCL3, in detecting DKD among patients with DM, compare their diagnostic accuracy with proteinuria, and analyse their association with risk factors for DKD.

Methodology:

This case-control study with 156 diabetes patients, divided into 92 cases (DKD with eGFR < 60 ml/min/1.93m²) and 64 controls (no kidney disease with eGFR ≥ 60 ml/min/1.93m²). Serum levels of TNFR1, Urine DKK-3 and BCL3 were measured via ELISA assays. Proteinuria was assessed using the urine protein creatinine index (UPCI). ROC curve analysis evaluated the diagnostic performance of the three biomarkers and proteinuria in detecting Stage 3 DKD. Bivariate analysis examined associations between the biomarker levels and risk factors like HbA1c, gender, race, and lab parameters.

Results:

The area under curve (AUC) for sTNFR1, uDKK-3, and sBCL3 in detecting DM with and without CKD was 0.915, 0.93, and 0.89, respectively, outperforming proteinuria (AUC = 0.74). Optimal cut-offs were: TNFR1 2400 pg/mL (91% sensitivity, 89% specificity), uDKK-3 400 pg/mg (98% sensitivity, 81% specificity), BCL3 200 pg/mL (95% sensitivity, 52% specificity), and UPCI 0.5 g/day (69% sensitivity, 73% specificity). Bivariate analysis revealed significant associations between elevated levels of sTNFR1, uDKK-3, and sBCL3 with older age, height, weight, hypoalbuminemia, high creatinine, severity of CKD stages, and proteinuria.

Conclusion:

The novel biomarkers are sTNFR1, followed by uDKK-3, and sBCL3 were better than proteinuria at detecting diabetic kidney disease in diabetes patients. Higher levels of these biomarkers were linked to risk factors. However, further multicentered studies are needed to validate the utility of these biomarkers for early detection of diabetic kidney disease and identification of high-risk patients for timely intervention.

Submission ID: A-0175
Oral Presentation

Category: Paramedic
Topic: Others : Diabetic Kidney Disease

COMPARING PERFORMANCE OF PROTEINURIA VERSUS NOVEL BIOMARKERS FOR PREDICTING THE SEVERITY OF RENAL FUNCTION DECLINE IN DIABETIC KIDNEY DISEASE. WHICH IS BETTER?

M.Zulkarnain Bidin¹, Anim Md Shah^{1,2}, J Stanslas³, Fauzah Abd Ghani⁴, Bak Leong Goh², Kah Wah Fuah², Christopher Thiam Seong Lim^{1,2}

¹Nephrology Unit, Department of Medicine, Faculty of Medicine and Health Sciences, Universiti Putra Malaysia, Serdang, Selangor, Malaysia

²Nephrology Unit, Serdang Hospital, Selangor, Malaysia

³Pharmacotherapeutics Unit, Department of Medicine, Faculty of Medicine and Health Sciences, Universiti Putra Malaysia, 43400 Serdang, Selangor, Malaysia

⁴Pathology Department, Faculty of Medicine and Health Sciences, Universiti Putra Malaysia, Serdang, Selangor, Malaysia

Background:

Monitoring renal function decline is critical in the management of diabetic kidney disease (DKD). This study compared the performance of traditional proteinuria measurement against the novel urinary biomarkers soluble tumor necrosis factor receptor-1 (sTNFR1), dickkopf-3 (uDKK3), and B-cell lymphoma 3 protein (sBCL3) in predicting renal function trajectory among DKD patients.

Methodology:

This 3-year prospective cohort study enrolled 92 DKD patients with a baseline estimated glomerular filtration rate (eGFR) < 60 ml/min/1.73m² from January 2021 until December 2023, with a minimum follow-up of more than 6 months. Proteinuria, sTNFR1, uDKK3, and sBCL3 levels were measured at baseline. Renal function decline was defined as a ≥5%, ≥10%, ≥25%, and ≥50% decrease in eGFR from baseline over 3 years. Logistic regression assessed the associations of biomarkers with rapid renal decline. Comparisons between proteinuria > 1g/day and novel biomarkers were analysed. A p-value < 0.05 was considered significant.

Results:

59 patients (56.5%) experienced rapid renal function decline of ≥ 5% renal decrease in eGFR over 3 years. Baseline levels of proteinuria (OR=2.2, 95% CI: 0.84-5.74) and sTNFR1 (OR=2.64, 95% CI: 0.30-623.01) with p < 0.05 for each ≥5%, ≥10%, ≥25%, and ≥50% decrease in eGFR were significantly associated with rapid renal decline after adjusting for confounders, but not uDKK3 and sBCL-3. The biomarkers outperformed proteinuria in predicting renal decline, with sTNFR1 demonstrating the highest accuracy compared with proteinuria.

Conclusions:

sTNFR1 is a superior predictive biomarker compared to proteinuria for anticipating renal function trajectory among DKD patients. Its measurement could improve risk stratification and management of progressive DKD. However, a larger multicenter study with a bigger sample size is needed to further validate these findings and establish the clinical utility of sTNFR1 for monitoring DKD progression.



Submission ID: A-0176
Poster Presentation

Category: Paramedic
Topic: Others : Diabetic Kidney Disease

TERTIARY LYMPHOID TISSUE FORMATION IN DIABETIC NEPHROPATHY (DN): WHAT IS THEIR SIGNIFICANCE?

M.Zulkarnain Bidin¹, Anim Md Shah^{1, 2}, J Stanslas³, Fauzah Abd Ghani⁴, Bak Leong Goh ², Kah Wah Fuah² Christopher Thiam Seong Lim ^{1, 2}

¹Nephrology Unit, Department of Medicine, Faculty of Medicine and Health Sciences, Universiti Putra Malaysia, Serdang, Selangor, Malaysia

²Nephrology Unit, Serdang Hospital, Selangor, Malaysia

³Pharmacotherapeutics Unit, Department of Medicine, Faculty of Medicine and Health Sciences, Universiti Putra Malaysia, 43400 Serdang, Selangor, Malaysia

⁴Pathology Department, Faculty of Medicine and Health Sciences, Universiti Putra Malaysia, Serdang, Selangor, Malaysia

Background:

Renal biopsy provides valuable insights into the underlying pathological lesions in DN. Tertiary lymphoid tissue (TLT) has been linked with adaptive immune response and coordinated local tissue inflammation. Studies aimed to investigate the histological lesions, particularly TLT formation, and their association with clinical parameters, renal function, and novel biomarkers in patients with DN.

Methodology:

This is a cross-sectional study on 20 patients with DN and severe proteinuria (>1.5 g/day) who had a kidney biopsy done at HSIS, Serdang between January 2021 and December 2023. The biopsy slides were reviewed for the presence, location, and amount of TLT lesions. Levels of biomarkers (sTNFR1, uDKK3, sBCL-3) were measured.

Results:

The mean age of the patients was 44.95±11.27 years with HbA1c 7.52±2.62%, UPCI 10.77±5.82 g/day, eGFR was 48.85±27.33 mL/min/1.73m². Majority of TLTs were in the corticomedullary section (50%) with a median number of 3 TLT follicles per high-power field (IQR: 1-3.75). From the biopsies, iFTA > 50%: 70%, ti score (26-50%): 50%; Terveate scores: class III: 45% and class IV: 40% were noted. A significant association was found between a high number of TLTs with eGFR (p=0.029) and HbA1c (p=0.006). Severity of DN (based on Terveate) correlated with a number of TLTs (65% cases), but the association was not significant (p=0.605). No significant association of novel biomarkers with the histological findings was observed.

Conclusions:

TLT is a significant finding in DN, as it is associated with chronic inflammation and progressive kidney injury. The presence and higher number of TLTs in the kidney biopsies of our DN patients with severe proteinuria correlated with severity of DN and poor glycaemic control, suggesting that TLT formation may play a role in the pathogenesis and progression of DKD by perpetuating inflammation in the kidney.

Submission ID: A-0177
Poster Viewing

Category: Doctor
Topic: Peritoneal Dialysis

BEYOND THE SURFACE: UNMASKING TUBERCULOSIS MASQUERADING AS DIALYSIS-INDUCED FLUID OVERLOAD - A CASE SERIES

Mohd Nor Nashriq UMAR¹, Wan Rohaslizan WAN DAUD¹, Muhammad Yusuf ABU SHAMSI¹, Nur Ezzaty MOHD KAZMIN³, Rozita MOHD¹, Ruslinda MUSTAFAR¹, Lydia KAMARUZAMAN¹, Nik Nuratiqah NIK ABEED², Ng BH², ANDREA Ban Yu Lin²

¹ Nephrology Unit, Department of Medicine, Faculty of Medicine, University Kebangsaan Malaysia, Kuala Lumpur, Malaysia

² Respiratory Unit, Department of Medicine, Faculty of Medicine, University Kebangsaan Malaysia, Kuala Lumpur, Malaysia

³ Department of Medicine, Faculty of Medicine and Health Science, Universiti Sains Islam Malaysia, Nilai, Negeri Sembilan, Malaysia

Introduction:

Tuberculosis in peritoneal dialysis (PD) population presents a significant diagnostic challenge due to its non-specific symptoms, which may resemble renal complications, and its predominant extrapulmonary manifestation. The scarcity of guidelines and limited sensitivity of available diagnostic tests contribute to delayed diagnosis of tuberculosis. Here, we present a case series highlighting the diagnostic challenges encountered in diagnosing tuberculosis in end-stage renal failure (ESRF) patients undergoing PD.

Case 1:

A 33-year-old ESRF woman on PD had experienced recurrent hospital admissions for fluid overload despite optimal dialysis prescription. She exhibited persistent bilateral pleural effusion. Pleural fluid analysis showed transudative effusion and tested negative for TB including adenosine deaminase, Xpert MTB/RIF assays and mycobacterium culture. Computed tomography (CT) thorax demonstrated matted mediastinal necrotic nodes with bilateral pleural effusion. Pleuroscopy with pleural biopsy revealed chronic inflammatory cells and bronchoscopy with broncho-alveolar lavage (BAL) yielded negative result. Despite inconclusive evidence, a high suspicion for tuberculosis prompted the empirical initiation of standard anti-tuberculous therapy. The patient exhibited a positive clinical response to treatment with radiological resolution on follow up imaging.

Case 2:

A 45-year-old woman diagnosed with ESRF on PD and Ischemic Heart Disease admitted for acute coronary syndrome in failure. Despite commencing ACS treatment, optimizing anti-failure therapy and maintaining her in euvolumic state, she still complaining of persistent cough and dyspnea. Repeated chest radiograph showed a right hilar cavitating lesion which was masked by congestive features on initial imaging. Bronchoscopy with BAL was performed, revealed caseating endobronchial lesion at right segmental bronchus and sample was positive for XpertMTB/RIF assays. She was commenced on anti-tuberculous therapy and responded well. Repeated bronchoscopy showed resolution of endobronchial lesion.

Conclusion:

A high clinical suspicion for TB must be maintained, especially in special populations residing in endemic regions, particularly those with atypical presentations and inconclusive diagnostic results.

Submission ID: A-0178
Poster Viewing

Category: Doctor
Topic: Haemodialysis

MORE MEDICAL SUPERVISION IS REQUIRED TO IMPROVE DIALYSIS OUTCOMES

Arwina devi Somasundaran, Aima Farhana Abdul Haris, Ahmad Safuan Samshul Bahari,
Muhammad Arif Amir, Partiban Perumal, Ranjitam Pubalan, Vickneswaran Renganathan
Jeyasutha Sukumar, Thomasraj Soosainathan, Mohana Regunathan, Mohammad Ashraf Rafiza,
Nor Majidah Mustaffa Kamal, Koh Pao Kuen, Tan Li Ping

All are with DaVita Malaysia

Introduction:

The medical outcomes of chronic hemodialysis patients receiving dialysis treatments in community dialysis centers in Malaysia are thought to be suboptimal. We hypothesized in 2022 that increased medical oversight and supervision of this cohort of patients may be able to improve dialysis care. To that end, DaVita Malaysia started hiring medical doctors on a full-time basis. At this time, there are 7 doctors under full time employment to fulfill this aim.

Objective:

To compare the medical outcomes of patients receiving dialysis in a standard of care dialysis center vs centers with increased medical oversight.

Methods:

This is a retrospective analysis of 41 DaVita dialysis centers in Malaysia. Centers were divided into whether they received coverage by a full-time medical doctor or not. All centers continued to have the services of a Visiting Nephrologist who would see patients every 3 months as well as a Person-in-Charge who would see patients on a minimum monthly basis. A panel of 6 medical outcomes were identified before the program and given targets and weightages, Data was obtained from January till December of 2023 and was analysed with a 2 tailed Students T test.

Results:

21 centers had the services of a full-time doctor vs. 20 centers without. Centers covered by a full-time doctor were numerically better overall with outcomes close to statistical significance ($p=0.06$). Of the medical variables selected, % of patients with phosphorus $< 5.5\text{mg/dL}$ achieved statistical significance ($p=0.01$).

Conclusion:

The addition of more medical oversight led to improved medical outcomes overall. While the weaknesses of the study are related to its size, duration and applicable only to a selection of medical outcomes. we feel that it provides important data towards improving outcomes amongst haemodialysis patients in Malaysia.



Submission ID: A-0179
Poster Presentation

Category: Doctor
Topic: Peritoneal Dialysis

OUTCOME IN OBLIGED PERITONEAL DIALYSIS COHORT: RETROSPECTIVE SINGLE CENTER STUDY

IRENE Wong ¹, SHAHNAZ Shah Firdaus Khan ¹, NOORBARIAH binti Adam ¹

Nephrology Department, Hospital Tengku Ampuan Rahimah, Klang, Selangor, Malaysia

Introduction:

In Malaysia, shared decision making among end stage kidney disease (ESKD) patients to choose kidney replacement therapy (KRT) modality are practiced. There was a proportion of patients who are obliged to choose peritoneal dialysis (PD) due to multiple reasons. Obligatory PD patients are patients who had previous regular hemodialysis therapy and need to transfer to PD or their initial choice KRT was not PD but obliged to choose PD due to cardiac condition or vascular access problem. In this study, we intend to analyze outcomes between obliged PD (oPD) patients compared to PD preferred (pPD) patients.

Methodology:

This is retrospective, observational study involving all incident PD patients from 1st Jan 2017 to 30th June 2021 who fulfilled inclusion criteria. Baseline demographic data and outcome in term of survival, peritonitis and hospitalization at 2 years were compared between oPD and pPD group using SPSS version 26.0.

Results:

A total of 367 incident PD patients in which 257 (70%) were pPD while 110 (30%) were oPD patients. The mean age in pPD was 50±15-year-old while oPD 54±12-year-old, p=0.003. pPD patients had significantly higher numbers with tertiary education, 51/257 (19.8%) vs oPD 9/110 (8.2%), p=0.02. There were more assisted-PD on oPD group as compared to pPD, 54/110 (49.1%) vs 82/257 (31.9%), p=0.002. There was higher percentage diabetes mellitus in oPD compared to pPD, 86/110 (78.2%) vs 177/257 (68.9%), p=0.07 and higher congestive cardiac failure in oPD 42/110 (38.2%) vs pPD 71/257 (27.6%), p=0.05. Patient's mortality after 2 years was significantly higher in oPD as compared pPD, 23/84 (27.4%) vs 21/215 (9.8%), p=0.003. No difference in peritonitis rate and hospitalization between these two groups at 2 years.

Conclusion:

Obligatory PD patients in our center were older, with cardiovascular diseases and required assisted PD. Their 2-year mortality was significantly higher compared to pPD.

Submission ID: A-0180
Oral Presentation

Category: Doctor
Topic: Transplant

COMPARISON OF OUTCOMES BETWEEN LOW-RISK AND HIGH-RISK LIVING KIDNEY TRANSPLANT PATIENTS AT UNIVERSITY MALAYA MEDICAL CENTRE

Guo Jian LEON¹, Maisarah JALALONMUHALI², Yee Wan LEE², Shok Hoon OOI², Chang Chuan CHEW², Chye Chung GAN², Chew Ming WONG², Kok Peng NG², Soo Kun LIM²

¹: Division of Nephrology, Department of Medicine, University of Malaya Medical Centre, Kuala Lumpur, Malaysia

²: Division of Nephrology, Department of Medicine, University of Malaya, Kuala Lumpur, Malaysia

Introduction:

High-risk patients, characterized by the presence of donor-specific antibodies (DSA) face significant challenges in finding compatible donors and are generally associated with poorer post-transplant outcomes compared to low-risk patients. This retrospective study aims to compare the outcomes of living kidney transplants between low-risk and high-risk patients at the University Malaya Medical Centre (UMMC).

Methodology:

This retrospective study includes living kidney transplant patients at UMMC from January 2015 to December 2023, excluding ABO-incompatible transplant patients. High-risk patients are defined as having positive DSA while low-risk is the otherwise. Data on patient demographics, transplant characteristics, immunosuppressive regimens, rejection episodes, renal function, and complications were collected from electronic medical records and analysed using SPSS v29.0.2.

Results:

A total of 160 patients were included in the study, with a mean age of 39.81 ± 11.41 years (57.5% males, 42.5% females). Low-risk patients had a higher rate of pre-emptive transplants (21.6%) compared to high-risk patients (9.1%). The median dialysis vintage was 17 months for low-risk patients and 24 months for high-risk patients. At the first and fifth years post-transplant, the median creatinine levels for low-risk patients were 107 $\mu\text{mol/L}$ and 104 $\mu\text{mol/L}$, respectively, while for high-risk patients, the median creatinine level was 115 $\mu\text{mol/L}$ for both years. Despite these differences, the progression of creatinine levels did not differ significantly between these two cohorts up to five years post-transplant ($P > 0.05$). The rate of biopsy-proven acute cellular rejection (BPACR) for low-risk and high-risk patients are 15.2% and 9.5% respectively within the study period. Notably, the difference in graft survival between the groups was not statistically significant ($P=0.411$).

Conclusion:

Despite the difference in immunological risk, the progression of creatinine levels up to five years post-transplant was similar between the groups, underscoring the importance of effective desensitization protocols and immunosuppressant use.

Submission ID: A-0181
Poster Presentation

Category: Doctor
Topic: Peritoneal Dialysis

OUTCOMES OF TENCKHOFF CATHETER INSERTION BY SELDINGER TECHNIQUE WITH OR WITHOUT PREPERITONEAL TUNNELING - A RETROSPECTIVE STUDY

Yon Quan CHAN¹, Qhairyl Iylman bin AHMAD SHANIZZA¹, Benjamin Wei Wang TAN¹, Vinoth Kasi Rajan a/l ATHMALINGAM¹, Fei Sia CHAN¹, Koh Wei WONG¹.

¹Nephrology Unit, Hospital Queen Elizabeth, Sabah, Malaysia.

Introduction:

Effective peritoneal dialysis (PD) therapy relies on the continuous functionality of the Tenckhoff catheter (TC). The method of TC insertion significantly impacts its performance and longevity. At our center, we stratify patients to determine the most appropriate TC insertion method. By selecting the right patients and providing thorough training to the operator, we implement preperitoneal tunneling (PPT) under ultrasound guidance with Seldinger TC insertion to reduce the rate of TC dysfunction.

Aim:

To compare mechanical dysfunction, catheter related infection and safety between Seldinger TC insertion with and without PPT over a period of 3 months.

Method:

This retrospective descriptive study examined all TC insertions using Seldinger technique with and without PPT at Hospital Queen Elizabeth from January 2023 till February 2024.

Results:

A total of 236 TC insertions were performed during this period, with 68% (n=160) using Seldinger technique without PPT and 32% (n=76) with PPT. The catheter dysfunction (CD) rate was 8.4% (n=13) in non PPT group and 7.9% (n=6) in the PPT group. In the non PPT group, CD cases included 8 catheter migration, 4 omental wrap and 1 extraperitoneal placement. In PPT group, CD cases included 5 omental wrap and 1 extraperitoneal placement, with no catheter migrations reported. The 3-month mortality rate was 3.7% (n=6) in the non PPT group and 0% in PPT group. There was 1 bowel perforation in non PPT group and none in PPT group. The infection rate in PPT group 14.5% (n=11), with 6 required TC removal while the non-PPT group had infection rate of 8% (n=13), 9 requiring TC removal.

Conclusion:

With adequate training and appropriate patient selection, Seldinger TC insertion with PPT is safe and can reduce the incidence TC migration. A randomized controlled trial comparing these methods would provide more definitive results.

Submission ID: A-0182
Poster Viewing

Category: Doctor
Topic: Haemodialysis

NOVEL ENDOVASCULAR DIRECT INTRACLOT-THROMBOLYSIS COUPLED WITH MODIFIED ASPIRATION THROMBECTOMY TECHNIQUE IN A SERIES OF THROMBOSED ARTERIOVENOUS FISTULA WITH LARGE ANEURYSM AND HIGH CLOT-BURDEN

Chye Chung GAN^{1,2}, Soo Ying YEW¹, Kin Wong CHAN³, Daoyao LING⁴, Ahmad Rafizi Hariz Bin RAMLI^{4,5}

1. Division of Nephrology, Department of Medicine, University Malaya Medical Centre, Kuala Lumpur, Malaysia.
2. Division of Nephrology, Department of Medicine, Faculty of Medicine, University of Malaya, Malaysia.
3. Department of Biomedical Imaging, University Malaya Medical Centre, Kuala Lumpur, Malaysia.
4. Vascular Unit, Division of General Surgery, Department of Surgery, University Malaya Medical Centre, Kuala Lumpur, Malaysia.
5. Vascular Unit, Division of General Surgery, Department of Surgery, Faculty of Medicine, University of Malaya, Malaysia.

Introduction:

Arteriovenous fistula (AVF) thrombosis is a well-known associated dialysis access complication that leads to interruption of hemodialysis, increases morbidity and mortality. Though endovascular equipment is well designed for the intended use with promising effectiveness, however, if the thrombosed fistula comes with high clot-burden and large aneurysmal clot(s), it is only effective with open thrombectomy technique. Hereby, we present two cases of thrombosed AVF successfully managed using intraclot-thrombolysis with modified aspiration thrombectomy techniques.

Methods and Results:

Case-1:

77-year-old woman with aortic stenosis, was dialysed for 17-years via left Radiocephalic (RC)-AVF (Fig.1a). She presented with no thrill over the aneurysmal segment. Ultrasound (USG) revealed a total clot at the A and V aneurysms with stenosis at intercannulation segment. The clot is of subacute and chronic stage (Fig.1b). Due to financial issues, procedure was done after 17 days.

Case-2:

58-year-old man with diabetes mellitus and hypertension, was dialysed for 6-years via left RC-AVF. He presented with difficult cannulation at V-aneurysm and clot aspirated. USG revealed a large clot at V-aneurysm occluding almost 95% of the venous outflow. The clot is of acute and subacute stage (Fig2a). His case was dealt within 48 hours of diagnosis. After standard sterile preparation and local anaesthetic injection, the aneurysmal clot was injected with Alteplase 3mg/aneurysm (case 1) and Urokinase 60,000 IU/aneurysm (case 2) under direct USG guidance using 23-G needle on standard 5ml syringe (Fig.2b). A 10Fr vascular sheath was inserted from proximal flow of the fistula (Fig.2c) and 20ml syringe was connected to the sheath flush line to exert negative pressure. Modified thrombo-aspiration repeated until the aneurysmal was clean (Fig.2d). Total intervention time was 1.5-2 hours.

Conclusion:

The cases underscore the possibility of novel, low-cost, safe, and effective endovascular treatment without the need for open thrombectomy in thrombosed AVF with large aneurysms and high clot-burden.



Submission ID: A-0183
Poster Viewing

Category: Doctor
Topic: Others :

CULTURAL ADAPTATION AND VALIDATION OF THE INTEGRATED PALLIATIVE CARE OUTCOME SCALE RENAL SURVEY (IPOS-RENAL) FOR USE AMONG ADVANCE KIDNEY DISEASE PATIENTS IN MALAYSIA: IPOS-RENAL-MYR

Syahriah Mustafar¹, Nor Fadhlina Zakaria^{1,2}, Rafidah Abdullah³, Diana Katiman⁴

¹Department of Nephrology, Hospital Pengajar UPM ²Department of Nephrology, Hospital Serdang ³Department of Nephrology, Hospital Putrajaya ⁴Department of Nephrology, Hospital AI Sultan Abdullah UTM

Background:

End-stage kidney disease (ESKD) patients endure significant symptom burden, impacting their functional status, subjective well-being, and overall Health-Related Quality of Life (HRQOL). However, the identification and management of these symptoms remain inadequate, partly due to the lack of suitable assessment tools, especially in the palliative care setting. The Integrated Palliative Outcome Score (IPOS)-renal survey offers promise in capturing these symptoms comprehensively. Yet, its application in Malaysia necessitates adaptation and validation due to the country's unique cultural and linguistic landscape.

Objectives:

This study aims to adapt, translate, and validate the IPOS-RENAL survey for use in Malaysian Renal Palliative Care settings, focusing on patients with advanced kidney diseases.

Methods:

The original English version of IPOS-RENAL will be translated and validated into Malay (IPOS-RENAL-MyR). A prospective multicenter cross-sectional questionnaire validation will be conducted among ESKD patients (n=220) receiving palliative care. Participants will include those with eGFR < 15 mL/minute/1.73 m², undergoing dialysis or conservative management. The IPOS-RENAL-MyR will be administered alongside other validated surveys, with retesting at intervals. Inter-rater reliability and construct validity will be assessed using Spearman's coefficient of correlation. Results: Anticipated outcomes include a negative correlation between symptom scores and HRQOL summary scores, indicating the efficacy of the IPOS-RENAL-MyR in symptom assessment.

Conclusion:

The adapted IPOS-RENAL-MyR surveys, for patients and staff, are expected to demonstrate good reliability and validity in assessing symptoms in palliative ESKD care in Malaysia, thus warranting their integration into clinical practice.



Submission ID: A-0184
Poster Viewing

Category: Doctor
Topic: Others : Intervention Nephrology

ASSESSMENT OF INTERVENTIONAL NEPHROLOGY PROCEDURES IN HSAAS: AN AUDIT ANALYSIS

Hazwani Ismail¹, Nurain Othman¹, Anim Md Shah^{1,2}, Nor Fadhina Zakaria^{1,2}, Christopher Lim
Thiam Seong^{1,2}, Wan Zul Haikal Hafiz Wan Zukiman^{1,2}

¹Department of Medicine, Faculty of Medicine and Health Sciences, University Putra Malaysia,
43400 Serdang, Selangor, Malaysia
²Hospital Sultan Abdul Aziz Shah,
University Putra Malaysia, 43400 Serdang, Selangor, Malaysia

Interventional nephrology, with its minimally invasive techniques, has played a critical role in improving renal care. Hospital Sultan Abdul Aziz Shah (HSAAS) is one of the leading institutions in offering interventional nephrology procedures to a varied patient population. This study will audit and examine these procedures at HSAAS, comparing their outcomes to clinical recommendations.

This retrospective cohort study includes 76 ESRF patients in HSAAS, with data collected from medical records and procedures categorised into permanent catheter insertion, internal jugular catheter (IJC) insertion, Tenckhoff catheter procedures, and fistula/vascular procedures for comprehensive analysis. We aim to identify service delivery complications and improve patient care standards in interventional nephrology.

We evaluated 76 patients, with 45 (59.2%) male and 31 (40.8%) female, averaging 60.98±11.08 years old. High rates of hypertension and diabetes were both 85.5%, and dyslipidemia was 69.7%. CVA (14.5%) and IHD (23.7%) were less common, while 15.8% smoked. Most procedures conducted were permanent catheter insertion (62.3%), followed by vascular procedures (36.4%), IJC insertion (11.7%), and Tenckhoff procedures (5.2%). The complications studied were bleeding (6.5%), infection (22.4%), blocked access (39.5%), repeated procedures (23.7%), and mortality (6.6%). Fistula creation history was associated with blocked catheters (OR = 7.738, p = 0.001), similar to the fistula/vascular procedure (OR = 5.4, p = 0.001). Smoking had the highest odds ratio across medical diseases (OR = 2.802), suggesting a probable link with repeated procedures (p = 0.141). A history of fistula insertion had an odds ratio of 4.063 (p = 0.05), and the fistula/vascular procedure had an odds ratio of 2.778 (p = 0.092), with repeated procedures showing borderline significant associations.

The high prevalence of permanent catheter insertion demonstrates the reliance on these treatments for long-term vascular access. Smoking causes repeated procedures, whereas blocked catheters cause fistulas. Risk factor associations with bleeding, infection, and mortality were negligible.

Submission ID: A-0185
Poster Viewing

Category: Doctor
Topic: Transplant

EFFICACY OF INTRAVENOUS IMMUNOGLOBULIN AS ADJUNCTIVE TREATMENT OF BK VIRUS NEPHROPATHY AFTER KIDNEY TRANSPLANTATION

LK Soh¹, BC Bee¹, MI Siti Hafizah¹,

¹Department of Nephrology, Hospital Selayang, Malaysia

Introduction:

BK Virus Nephropathy (BKVN) is an important cause of graft dysfunction and loss following kidney transplantation (KT). The primary treatment involves reducing immunosuppression (IS). There is no universally superior treatment regimen, but studies suggest that adjunct therapy with intravenous immunoglobulin (IVIG) may offer benefits.

Objective:

To determine the efficacy of adjunctive IVIG in treating BKVN.

Methodology:

A retrospective cohort study was conducted on KT recipients at Hospital Selayang who received IVIG therapy as an adjunct to IS reduction for BKVN treatment.

Results:

Patients were screened for BK virus per monitoring protocol or upon presenting with allograft dysfunction. Among patients who underwent KT between January 2022 and April 2024 at our centre, nine cases of BKVN were identified. BKVN diagnosis was confirmed based on rising BK-PCR levels and/or allograft biopsy, with mean presentation time of 6.7 ± 5.4 months post-KT. Tacrolimus, mycophenolic acid (MPA) and prednisolone were the primary IS agents used. In all patients, IS were reduced or modified. Seven patients who did not respond to IS reduction were given IVIG at 0.4g/kg/day for five days. In five of these patients, viremia clearance and improvement in allograft function were achieved. However, two cases required repeated monthly cycles of IVIG at 0.4g/kg/day for five days for at least three cycles. Despite this, viremia reduction was not achieved, and allograft function did not improve. Biopsies in these patients showed stage 3 BKVN with moderate to severe interstitial fibrosis and tubular atrophy. No adverse effects were reported with cyclical IVIG administration.

Conclusion:

BKVN continues to be a critical cause of allograft dysfunction and loss. While the primary treatment remains IS reduction, IVIG administration appears to be effective and safe adjunctive treatment.



Submission ID: A-0186
Poster Viewing

Category: Doctor
Topic: Infections

RARE NEUROLOGICAL PRESENTATION OF RALSTONIA PICKETTII INFECTION IN IMMUNOCOMPROMISED PATIENTS: A CASE REPORT

Nurain Othman¹, Hazwani Ismail¹, Logadarshini Rajagopal¹, Anim Md Shah^{1,2}, Nor Fadhlina Zakaria^{1,2}, Christopher Lim Thiam Seong^{1,2}, Wan Zul Haikal Hafiz Wan Zukiman^{1,2}

¹Department of Medicine, Faculty of Medicine and Health Sciences, University Putra Malaysia, 43400 Serdang, Selangor, Malaysia

²Hospital Sultan Abdul Aziz Shah, University Putra Malaysia, 43400 Serdang, Selangor, Malaysia

Introduction:

Ralstonia pickettii, a gram-negative bacillus found in aquatic settings, has become an opportunistic infection that affects immunocompromised individuals. Medical equipment colonisation often causes *Ralstonia* spp. infections and has been connected to hospital epidemics. While fever, respiratory difficulties, and skin infections are prevalent, neurological consequences are rare.

Case Report:

A 63-year-old female, known to have hypertension, end-stage renal failure necessitating hemodialysis since 19 years ago via brachiocephalic fistula, and beta thalassemia intermedia, presented to the emergency department with fever, chills, and rigors during dialysis. Upon examination, she was afebrile and exhibited intermittent myoclonic jerks, predominantly affecting the upper extremities and oral facial area. Laboratory investigations revealed leukocytosis and elevated C-reactive protein (CRP) levels. We initiated empirical broad-spectrum antibiotic therapy, and blood cultures revealed the growth of *Ralstonia pickettii*. The EEG revealed myoclonus changes without epileptic wave formation. A CT brain scan showed no meningeal enhancements or hypodense lesions. Intravenous tazocin treatment for 14 days resolved the myoclonic jerks.

Discussions:

Ralstonia pickettii CNS infections are rare, making them difficult to diagnose. Our study suggests that patients with end-stage renal failure undergoing hemodialysis may present with myoclonic jerks in this infection. If suspicion arises, blood cultures and cerebrospinal fluid analysis are essential. CT brain and EEG may aid in diagnosis. It is crucial to initiate antimicrobial therapy promptly, guided by susceptibility testing. Check for an arteriovenous fistula infection and contaminated dialysis water if someone develops bacteremia after dialysis. Complications can be grave, with endocarditis and arteriovenous fistula thrombosis among the potential outcomes. Prolonged treatment may be considered based on the above clinical outcomes.

Conclusions:

Ralstonia pickettii infection rarely presents as myoclonic jerks. Finding *Ralstonia pickettii* bacteremia or another clinical isolate suggests medical product contamination, emphasizing the need for imaging and EEG investigations for unusual neurological symptoms.



Submission ID: A-0187
Poster Presentation

Category: Doctor
Topic: Others : renoprotective therapy for CKD

OPTIMISING RENOPROTECTIVE THERAPIES: AN AUDIT OF ACE-I, ARB, AND SGLT2 INHIBITOR USAGE IN NEPHROLOGY PATIENTS

Rooshantini Selvaraju¹, Siti Syafiqah Salleh¹ Hazwani Ismail¹, Ahmad Akmal Ahmad Zailan¹, Nurain Othman¹, Anim Md Shah^{1,2}, Nor Fadhlina Zakaria^{1,2}, Christopher Lim Thiam Seong^{1,2}, Wan Zul Haikal Hafiz Wan Zukiman^{1,2}

¹Department of Medicine, Faculty of Medicine and Health Sciences, University Putra Malaysia, 43400 Serdang, Selangor, Malaysia

²Hospital Sultan Abdul Aziz Shah, University Putra Malaysia, 43400 Serdang, Selangor, Malaysia

Introduction:

Chronic kidney disease (CKD), led by diabetic kidney disease (DKD) and hypertensive kidney disease, is expected to become the sixth-greatest cause of mortality by 2040. The link between CKD and cardiovascular events emphasises the need to delay its onset and progression. ACEis and ARBs have been standard therapies; however, current data reveals varying efficacy in lowering cardiovascular events and mortality. Sodium-glucose cotransporter-2 inhibitors (SGLT2is) have shown promise in nephrology, suggesting new ways to control CKD alongside established medications.

Methodology:

We retrospectively examined ACE-I, ARB, and SGLT2 inhibitor use in CKD patients. We examined patient demographics, medications, test findings, and clinical outcomes in HSAAS Nephrology Clinic electronic health records from March to August 2023. Descriptive and inferential statistics were used to summarise the data and identify renoprotective therapy effectiveness variables.

Results:

The study explored renoprotective interventions in a cohort of 184 CKD patients, primarily male (65.8%) and of Malay descent (87%), with notable incidences of hypertension (93.5%) and diabetes (73.9%). Treatment modalities encompassed SGLT2 inhibitors and ARBs, with 49.5% receiving combination therapy. Adverse events were recorded in 4.9% of cases, while 29.9% demonstrated improvement in UPCI. Regarding renal function, a subset experienced an increase in eGFR, with 3.3% achieving a $\geq 50\%$ increment and 32.1% observing a $< 50\%$ increment. Analysis revealed varying risk factors for complications and achieving a 50% increment in eGFR, with no discernible correlations noted for age, sex, or specific medication categories. Nevertheless, the use of SGLT2 inhibitors and combination therapy exhibited significant associations with UPCI improvement ($p < 0.001$).

Conclusion:

In conclusion, the study shows that some treatments might be able to improve kidney function in patients with CKD. Specifically, treatments such as SGLT2 inhibitors and ARBs, when used in combination by almost half of the patients, showed a substantial improvement in UPCI levels.

Submission ID: A-0188
Poster Viewing

Category: Doctor
Topic: Haemodialysis

GEOGRAPHICAL DIFFERENCES IN CATHETER RATES AMONGST COMMUNITY DIALYSIS PATIENTS IN MALAYSIA

Ranjitam Pubalan, Arwina devi Somasundaran, Aima Farhana Abdul Haris, Ahmad Safuan Samshul Bahari, Muhammad Arif Amir, Partiban Perumal, , Vickneswaran Renganathan Jeyasutha Sukumar, Thomasraj Soosainathan, Mohana Regunathan, Mohammad Ashraf Rafiza, Sabrina Mat Zain, Harmeet Kaur Gurmukh Singh, Nor Majidah Mustaffa Kamal, Koh Pao Kuen, Tan Li Ping

DaVita Malaysia

Introduction:

The creation of an arteriovenous fistula (AVF) or graft (AVG) is generally considered the preferred vascular access. In lieu of either of the above, patients are dialysed with the aid of a indwelling central venous catheter. While allowing access to the blood circulation, this form of access is generally considered to be inferior to the AVF or AVG due to increased rates of infection and catheter malfunctions. The majority of patients seek out the Ministry of Health or Ministry of Education hospitals for more affordable AVF or AVG creation. Anecdotally, there have been backlogs for the creation of AVF / AVG resulting in higher than acceptable catheter rates.

Objective:

We sought to identify whether there are differences in the demand for AVF / AVG services based on geographical distribution of dialysis centers

Methods:

This was a retrospective study from October till December 2023. Catheter rates were monitored and the averages were obtained from each center. Patients were only included if catheters were present for more than 90 days. Centers were distributed along best fit geographical regions

Results:

Centers based in Johor had the lowest average catheter rates of 7% (1-28%) This was followed by centers in Sabah, 9% (6-12%). The remaining centers had a range of catheter rates between 21% and 27%. Centers in Selangor had average catheter rates of 21% (13-33) compared to centers in Wilayah Persekutuan, 27% (20-33%). If regrouped into klang Valley vs Outer Klang Valley, centers in Klang Valley had higher catheter rates of 24% (15-33%) compared to centers in Outer Klang Valley, 21% (13-33%). Center in Northern Malaysia fared marginally better with average catheter rates of 17% (2-29%)

Conclusion:

There exist very large geographical differences among catheter rates in dialysis centers. It would be beneficial to identify the reasons driving these differences.

Submission ID: A-0190
Poster Viewing

Category: Doctor
Topic: Others : ACUTE KIDNEY INJURY

BLAZING TEMPERATURE HURTS THE KIDNEYS: A CASE REPORT OF EXTREME EXERTIONAL HEAT STROKE CAUSING SEVERE RHABDOMYOLYSIS AND ACUTE KIDNEY INJURY IN A YOUNG PATIENT

Agnes Adaikalasamy¹ Miza Hiriyanti ¹

¹ Department of Medicine, Hospital Sultanah Maliha, Langkawi , Kedah, Malaysia.

Introduction:

Rhabdomyolysis exhibits a spectrum of severity, from mild cases with minimal symptoms to severe instances with life-threatening complications. Heat stroke an extreme form of heat-related illness and constitutes a medical emergency. Here, we present a case of profound heat stroke in a patient resulting in rhabdomyolysis and multiorgan failure.

Case Presentation:

22-year-old male, a police cadet trainee, previously well, presented to hospital following an episode of sudden agitation. This occurred after undergoing intense training for 10 hours on the same day. He collapsed post-training and lost consciousness, subsequently experiencing multiple tonic-clonic seizures lasting approximately 5 minutes, which were terminated with intravenous Valium. He developed supraventricular tachycardia (SVT) with a heart rate of 150-180bpm, necessitating cardioversion. On physical examination, he was febrile 39°C, blood pressure 91/67mmHg, pulse rate 168/min, respiratory rate 35/min, and oxygen saturation 95% on room air. His Glasgow Coma Scale (GCS) was E1V1M1, with pinpoint pupils. Other physical examinations were unremarkable. He was electively intubated due to poor GCS and cardiac instability and admitted to ICU. Laboratory tests revealed elevated serum creatinine (694 mmol/L), urea (22 mmol/L), potassium (6.3 mmol/L), creatine kinase (CK) (>42,670 U/L), urine myoglobin (40,300 ug/L), total bilirubin (103 umol/L), ALT (4287 U/L), AST (3881 U/L), LDH (5099 U/L), hemoglobin (12.7 g/dL), platelet count (46 x 10³), and INR (1.68). The diagnosis of exertional heatstroke with multiorgan failure and rhabdomyolysis was established. He received intravenous hydration and dialysis support. He was transferred to general ward once weaned off mechanical ventilation. With hemodialysis, his CK levels dropped to 7189 U/L, and other blood parameters improved. After 1.5 months, hemodialysis was ceased upon complete renal recovery, and he was discharged in good health.

Conclusion:

Extreme heat stroke frequently presents with rhabdomyolysis and acute kidney injury, timely recognition and intervention are crucial to prevent complications and reduces mortality.

Submission ID: A-0191
Poster Presentation

Category: Doctor
Topic: Others : quality of life of ESKD

ASSESSING QUALITY OF LIFE AND PSYCHIATRIC WELL-BEING IN ELDERLY PATIENTS WITH END-STAGE KIDNEY DISEASE (ESKD) WITH OR WITHOUT DIALYSIS: A CROSS-SECTIONAL STUDY

Ahmad Akmal Ahmad Zailan¹, Siti Syafiqah Salleh¹, Rooshantini Selvaraju¹, Hazwani Ismail¹, Nurain Othman¹, Anim Md Shah^{1,2}, Nor Fadhlina Zakaria^{1,2}, Christopher Lim Thiam Seong^{1,2}, Wan Zul Haikal Hafiz Wan Zukiman^{1,2}

¹Department of Medicine, Faculty of Medicine and Health Sciences, University Putra Malaysia, 43400 Serdang, Selangor, Malaysia

²Hospital Sultan Abdul Aziz Shah, University Putra Malaysia, 43400 Serdang, Selangor, Malaysia

Introduction:

ESKD in the elderly requires physical and mental health care. Elderly 55 and older have the greatest dialysis rates; however, their outcomes vary and often have a worse prognosis and greater mortality rates. Psychological disorders in chronic kidney disease (CKD) patients decrease function and deteriorate health. This study examines how dialysis treatment affects elderly ESKD patients' QoL and psychiatric well-being.

Methodology:

We recruited elderly ESKD patients with or without dialysis from HSAAS clinics and hemodialysis centres, excluding those with severe cognitive impairment or pre-existing psychiatric illnesses. We conducted questionnaires using validated KDQOL-36 and DASS-21, in addition to clinical data. We analysed the data using the latest SPSS.

Results:

A study of 42 elderly patients with end-stage renal failure revealed an average age of 68.71 years (± 6.31), with 66.7% males and 33.3% females. The sample was 97.6% Malay and 2.4% Indian. Hypertension (78.6%) and diabetes (81%). The average comorbidity count was 2.35 (± 1.07). Laboratory results indicated mean haemoglobin (10.05 g/dL, ± 1.75), urea (19.45 mmol/L, ± 9.57), and albumin (32.33 g/L, ± 6.58). Most patients (76.2%) underwent hemodialysis, 4.8% peritoneal dialysis, and 19% had no RRT. For the Effects of Kidney Disease (EKD) subscale, no renal replacement therapy ($p=0.079$) and depression ($p=0.089$) approach significance. Psychological components like stress ($p=0.124$), anxiety ($p=0.517$), and depression ($p=0.074$) had no significant associations, while depression approaches borderline significance with the KDQOL-36 Physical Component Summary (PCS) subscale. Both haemoglobin ($p=0.039$) and hemodialysis ($p=0.067$) are approaching significance for the Mental Component Summary. Heart failure was associated with increased stress, depression, and KDQOL-36 Effects subscales ($p=0.031$, $p=0.031$ and $p=0.043$ respectively).

Conclusion:

In conclusion, comorbidities, particularly heart failure, have a significant impact on elderly ESKD's quality of life and psychiatric well-being, regardless of dialysis status. Additionally, maintaining normal levels of blood parameters is crucial for this population's overall health.

Submission ID: A-0192
Poster Presentation

Category: Doctor
Topic: Glomerulonephritis

CLINICAL FACTORS ASSOCIATED WITH MYCOPHENOLIC ACID TREATMENT RESPONSE IN PATIENTS WITH LUPUS NEPHRITIS: A SINGLE CENTRE STUDY

Min Yie LIM¹, Loke Yuan SHEE¹, Esra Nasraldin Khalil SHARAFALDIN², Shubash Shander
GANAPATHY³, Maw Shin SIM⁴, Hasniza Zaman HURI², Soo Kun LIM¹

¹Renal Division, Department of Medicine, Faculty of Medicine, Universiti Malaya, Kuala Lumpur,
Malaysia

²Department of Clinical Pharmacy and Pharmacy Practice, Faculty of Pharmacy, Universiti
Malaya, Kuala Lumpur, Malaysia

³Institute for Public Health, National Institutes of Health, Ministry of Health Malaysia, Selangor,
Malaysia

⁴Department of Pharmaceutical Life Sciences, Faculty of Pharmacy, Universiti Malaya, Kuala
Lumpur, Malaysia

Introduction:

Lupus Nephritis (LN) is one of the severe organ manifestations of Systemic lupus erythematosus (SLE). Mycophenolate acid (MPA) in combination with glucocorticoid is the current standard of care treatment in proliferative LN. This study investigates the clinical factors associated with MPA treatment response in LN patients.

Methodology:

A retrospective study was conducted to include patients with proliferative LN (class III/IV ± V) treated with MPA between 1st October 2017 and 30th September 2022 at a tertiary teaching hospital. Basic demographics, medical data, and laboratory investigations at diagnosis, 6 and 12 months were captured from medical records. Data between responders and non-responders were compared to identify factors associated with MPA treatment response.

Results:

The study included 77 LN patients with a median age of 35, predominantly female (n=64, 83.1%) and of Chinese ethnicity (n=54, 70.1%). Relapsed cases constituted 64.9% of the cohort. The majority had a baseline estimated glomerular filtration rate (eGFR) of ≥ 60 ml/min/1.73m² (n=59, 84.3%), with a mean baseline 24-hour proteinuria of 2.29 ± 1.90 g/day. The overall treatment response to MPA at both 6 and 12 months was 80.5% (n=62). Complete remission (CR) was 53.2% (n=41) at 12 months, with 39.0% (n=21) responding by 6 months (early responders) and an additional 14.2% (n=11) responding by 12 months (late responders). Independent factors associated with MPA responders at 12 months was female gender (OR = 5.24, 95% CI = 1.43-19.2, p < 0.05). Statins usage (OR = 5.71, 95% CI = 1.07-30.63, p < 0.05) was associated with early response.

Conclusions:

These findings suggest that certain clinical characteristics may influence the response to MPA treatment in patients with LN, which can guide personalized treatment strategies in clinical practice.

Keyword:

Lupus nephritis, Mycophenolate acid, Remission



Submission ID: A-0193
Poster Viewing

Category: Doctor
Topic: Others : renal biopsy

ANALYSIS OF RENAL HISTOPATHOLOGICAL PATTERNS, PREDICTORS, AND PROGNOSTIC IMPLICATIONS IN DIABETIC NEPHROPATHY

Nursafinas Rofii², Hazwani Ismail¹, Anim Md Shah^{1,2}, Nor Fadhina Zakaria^{1,2}, Christopher Lim
Thiam Seong^{1,2}, Wan Zul Haikal Hafiz Wan Zukiman^{1,2}

¹Department of Medicine, Faculty of Medicine and Health Sciences, University Putra Malaysia,
43400 Serdang, Selangor, Malaysia

²Hospital Sultan Abdul Aziz Shah,
University Putra Malaysia, 43400 Serdang, Selangor, Malaysia

Introduction:

Renal complications affect 3% of newly diagnosed T2DM patients and 20–30% later. Reducing renal replacement treatment and mortality requires early identification. This study investigates renal histopathological patterns, predictors, and prognostic factors in diabetic nephropathy to identify biomarkers and histological features that predict disease development. Comprehensive kidney biopsy data help us understand diabetic kidney disease and improve prognosis and treatment.

Methodology:

A retrospective study examined renal histological features, factors, and prognostic implications in diabetic nephropathy. We analyzed HSAAS Nephrology Clinic renal biopsies from March to August 2023 for demographics, biopsy results, lab findings, and clinical outcomes. Descriptive statistics summarized the data and identified histological patterns and prognostic variables.

Results:

We studied 36 renal biopsies, 8 of which exhibited diabetic nephropathy. Among these patients, 87.5% had hypertension, 75% had ischemic heart disease, and 75% were obese, indicating significant cardiovascular and metabolic loads. Hemoglobin levels averaged 10.91 g/dL (± 1.34) and creatinine levels averaged 264.12 $\mu\text{mol/L}$ (± 87.96), with 75% of patients in stage 4 or higher of CKD. Histopathologically, 62.5% of patients exhibited Tervaert class III and 37.5% class IV, indicating serious renal injury. Participants had a 12.5% mortality rate, and 25% reduced creatinine levels by more than 50% after six months. No independent variables were identified. Obesity was associated with a decrease in eGFR ($p = 0.036$). Three of five individuals with eGFR reductions higher than 50% within one year had Tervaert class III lesions. Tervaert class III lesions are more likely to see a rapid reduction in eGFR compared to Tervaert class IV lesions, which are more likely related to proteinuria.

Conclusion:

Diabetic nephropathy patients had high rates of hypertension, ischemic heart disease, obesity, and severe renal impairment upon biopsy. The study found that proteinuria and obesity predicted eGFR decline, suggesting a role in disease progression but needing further study.

Submission ID: A-0194
Poster Presentation

Category: Doctor
Topic: Peritoneal Dialysis

PRESERVATION OF RESIDUAL KIDNEY FUNCTION AND URINE VOLUME IN PATIENTS ON PERITONEAL DIALYSIS: SINGLE CENTRE EXPERIENCE USING SEQUENTIAL NEPHRON BLOCKADE

Zanial MS¹, Bee BC¹, Mohammad Ismail SH¹

¹Department of Nephrology, Hospital Selayang, Malaysia

Introduction:

Residual renal function (RRF) is vital for end-stage kidney disease (ESKD) patients, with higher RRF linked to lower mortality. At Hospital Selayang, we used high doses of oral Frusemide (240-720 mg/day) and Metolazone (10-20 mg/day), a strategy called sequential nephron blockade, to preserve RRF in continuous ambulatory peritoneal dialysis (CAPD) patients.

Methods:

This retrospective cross-sectional study aims to determine the mean duration of preserved RRF in CAPD patients using sequential nephron blockade from 2006 to 2020 at Hospital Selayang. Data were collected from electronic medical records and analyzed using descriptive statistics.

Results:

Over the 14-year period from 2006 to 2020, 113 patients (50 males and 63 females) with a mean age of 53 years were included in the study. As of the present date, 52 out of these 113 patients still have significant urine output of more than 200cc per day. In contrast, 61 patients developed anuria, producing less than 100cc of urine per day, after an average of five years on sequential nephron blockade. Further analysis revealed that only 2.7% developed anuria within one year, while 12.4% maintained a residual renal function (RRF) of more than 200cc of urine per day for 1-2 years. Additionally, 13% of the patients had residual urine output for 2-3 years, and approximately 72% maintained an RRF for more than three years. There was no ototoxicity reported with the high diuretics usage.

Conclusion:

The use of sequential nephron blockade is effective in preserving residual renal function (RRF) for an average of five years from the initiation of peritoneal dialysis (PD) without any adverse side effects. Further research is needed to establish the most effective protocols for diuretic use in preserving RRF in CAPD patients.



Submission ID: A-0195
Poster Viewing

Category: Doctor
Topic: Peritoneal Dialysis

A SURVIVAL ANALYSIS OF TENCKHOFF CATHETER INSERTION IN HOSPITAL TENGGU AMPUAN AFZAN

Choong Wen Jet, Mohd Ashraf Bin Ghazali, Chan Chee Eng, Mohd Kamil Bin Ahmad,
Fariz Safhan Bin Mohamad Nor

Department of Nephrology, Hospital Tengku Ampuan Afzan, Kuantan, Malaysia

Introduction:

Peritoneal dialysis is a dialysis modality that gains more interest in the recent years due to its flexibility, residual renal function preservation and better early survival. However, catheter loss continues to be one of the major challenges resulting in technique failure. This is a retrospective study on the catheter outcome inserted by nephrology team HTAA.

Methods:

Operation theatre notes between 1 Jan 2021 and 31 Dec 2023 were reviewed. We only include insertions that came from patient following up at CAPD unit for the ease of monitoring and data collection. Catheter removal due to tip migration, drainage failure presuming omentum wrap and peritonitis were recorded. Those with catheter remains functioning beyond the study interval were censored. Catheter survival probability was analyzed using Kaplan-Meier model.

Results:

A total of 181 insertions were identified. Twelve (12) removal and insertions at same setting and 24 insertions with missing data or procedure get abandoned were excluded. Majority of the tenckhoff catheter insertions were assisted by peritoneoscope (130/145 = 89.6%). Eight (8) were inserted using seldinger technique and 7 were salvages for migrated catheter using seldinger method. Of the 145 insertions, 68 were removed at different point of time due to various reasons. Tip migration is the most common cause of catheter removal (60.5%) followed by peritonitis (25.6%) and omentum wrap (9.3%). Catheter inserted using peritoneoscope has highest mean estimated survival of 92 weeks (80-104, 95% CI) whereas migrated catheter salvaged using seldinger method has lowest estimated survival of 37 weeks (8-66, 95% CI). However, the difference in survival between different insertion techniques is not statistically significant.

Conclusion:

Medical tenckhoff has comparable event free catheter survival to that inserted by a peritoneoscope.



Submission ID: A-0196
Poster Viewing

Category: Doctor
Topic: Peritoneal Dialysis

GUIDEWIRE-ASSISTED BRUSHING TECHNIQUE FOR SALVAGING DYSFUNCTIONAL PERITONEAL DIALYSIS CATHETERS: A CASE SERIES

Moon Yan², Wan Muhamad Amir Wan Md Zin², Anim Md Shah^{1,2}, Nor Fadhlina
Zakaria^{1,2}, Christopher Lim Thiam Seong^{1,2}, Wan Zul Haikal Hafiz Wan Zukiman^{1,2}

¹Department of Medicine, Faculty of Medicine and Health Sciences, University Putra Malaysia,
43400 Serdang, Selangor, Malaysia

²Hospital Sultan Abdul Aziz Shah,
University Putra Malaysia, 43400 Serdang, Selangor, Malaysia

Introduction:

Peritoneal dialysis (PD) catheter obstruction is a frequent and challenging complication, often necessitating invasive interventions. We report a case series of three patients who underwent the guidewire-assisted brushing technique using Amplatz Super Stiff™ guide wire to salvage obstructed peritoneal dialysis (PD) catheters. This case series evaluated a guidewire-assisted brushing technique for salvaging obstructed peritoneal dialysis (PD) catheters.

Case 1:

A 74-year-old gentleman with end-stage kidney disease and a recently placed PD catheter experienced recurrent catheter blockages. After failed attempts with conventional methods, the guidewire brushing technique was performed under fluoroscopy. The entire catheter length was successfully brushed, aspirating fibrin deposits and restoring catheter patency.

Case 2:

An 18-year-old boy with end-stage kidney disease since 2022, on peritoneal dialysis, had a history of recurrent peritonitis episodes followed by poor catheter flow. The guidewire brushing technique successfully restored flow patency in his obstructed PD catheter.

Case 3:

A 63-year-old gentleman, unable to tolerate hemodialysis due to intradialytic hypotension, opted for peritoneal dialysis. However, difficult Tenckhoff catheter insertion was encountered. The guidewire brushing technique was employed during fluoroscopy-guided catheter placement, resulting in good catheter flow.

Discussion:

The guidewire brushing technique has demonstrated effectiveness in restoring peritoneal dialysis (PD) catheter patency with no immediate complications observed. Notably, it successfully removed fibrin clots, confirmed by histopathological examination (HPE), in one of the cases. Although the evidence is currently limited to three case reports, the outcomes warrant consideration for the management of malfunctioning catheters.

Conclusion:

The guidewire brushing technique proves both effective and safe in managing malfunctioning PD catheters.



Submission ID: A-0197
Poster Viewing

Category: Doctor
Topic: Transplant

A CASE OF EVEROLIMUS INDUCED THROMBOTIC MICROANGIOPATHY IN POST KIDNEY TRANSPLANT

Jason Kong, Zachary Leong, Liew Yew Fong, Chelsia Chang, Cheng Mei Chih

Department of nephrology, Hospital Pulau Pinang, Pulau Pinang, Malaysia

Background/Introduction:

Thrombotic microangiopathy (TMA) in post kidney transplant is rare and can have serious adverse events in patients. Typically, it can present in systemic form with microangiopathic haemolytic anaemia, thrombocytopenia and acute kidney injury. Most common cause is de novo TMA. However, drug induced TMA, infection related TMA and acute antibody mediated rejection has been reported.

Method:

Case report

Result:

We would like to report a case of everolimus induced TMA in a 41-year old patient who underwent spousal kidney transplant. Pre-transplant, she was detected to have donor specific antibody in which she was induced with anti-thymocyte globulin and underwent plasma exchange once. She has immediate graft function post-transplant with baseline creatinine 78-85. During a routine follow up 1-year 5months into her transplant, creatinine was elevated to 174, her everolimus level was noted to be high (9.1). Subsequently, she was work up to have TMA (red cell fragmentation from blood smear, thrombocytopenia and kidney injury) and she was subjected to 5rounds of plasma exchange and pulse methylprednisolone and subsequently, graft biopsy was performed which shows no evidence of antibody mediated rejection. Despite that, her thrombocytopenia persists with no recovery in kidney function. Hence, everolimus was withheld in which her parameters show improvement with resolved thrombocytopenia, reduced fragmentation of red cells, and improvement in kidney function.

Discussion:

Drug induced TMA is uncommon and usually occurs early in post kidney transplant period when dose of immunosuppression is at its peak. More often, calcineurin inhibitors such as tacrolimus and cyclosporin accounts majority of the cases. However, with the introduction of mTOR inhibitor such as everolimus and sirolimus, it is not uncommon to see cases with everolimus induced TMA and should be suspected in patient with high drug level.

Submission ID: A-0198
Poster Viewing

Category: Doctor
Topic: Others : Medication

DOUBLE-EDGED SWORD: SGLT-2 INHIBITORS AND THEIR UNFORESEEN EFFECTS ON MALE REPRODUCTIVE HEALTH

Kwan Li Li¹, Anim Md Shah^{1,2}, Nor Fadhlina Zakaria^{1,2}, Christopher Lim Thiam Seong^{1,2}, Wan Zul Haikal Hafiz Wan Zukiman^{1,2}

¹Department of Medicine, Faculty of Medicine and Health Sciences, University Putra Malaysia, 43400 Serdang, Selangor, Malaysia

²Hospital Sultan Abdul Aziz Shah, University Putra Malaysia, 43400 Serdang, Selangor, Malaysia

Introduction:

Male infertility is a complex condition influenced by many factors, including medication-induced infertility, particularly with new drug classes like sodium-glucose cotransporter-2 (SGLT2) inhibitors. IgA nephropathy can lead to chronic kidney disease (CKD), which adversely affects fertility. This case report explores the causes of reduced sperm count in a 29-year-old male, focusing on the possible roles of SGLT2 inhibitor use and IgA nephropathy.

Case Report:

29-year-old male with IgA nephropathy diagnosed in April 2022 presented with hypertensive urgency. Further workup showed hemoproteinuria, urine PCI of 1.2 g/day, serum creatinine of 141 $\mu\text{mol/L}$ (GFR of 58 mL/min/1.73 m²). Renal biopsy revealed diffuse sclerosis (50% global sclerosis) and a mesangioproliferative pattern. He was started on ARB and SGLT-2 inhibitor, which reduced proteinuria to 0.4 g/day, stabilized creatinine levels, and optimized blood pressure. However, he experienced infertility. Seminal fluid analysis showed reduction in total sperm count from 134.4 x 10⁶/mL to 38.8 x 10⁶/mL between February 2022 and February 2023. SGLT-2 inhibitor was discontinued at his request. Subsequent investigations showed worsening creatinine to 188 $\mu\text{mol/L}$ and increased proteinuria to 1.5 g/day..

Discussion:

Standard care for IgA nephropathy includes aggressive blood pressure control, RAS inhibitors, and lifestyle modification. Trials show that SGLT2 inhibitors significantly optimize blood pressure, reduce albuminuria, and slow CKD progression. However, adverse effects have been reported. Ulus Karaca et al. found SGLT-2 inhibitors caused morphologically damaged sperm in diabetic rats. Literature by Li D et al. and Tirmenstein M et al. reported genital infections and reduced libido in men. However, data on SGLT-2 inhibitors' effects on male fertility are limited.

Conclusion: SGLT2 inhibitors benefit patient with CKD, heart failure, and poorly controlled diabetes, and aid in weight reduction. Yet, their adverse effects, particularly on male fertility, must be considered. Diagnosing medication-induced male infertility is challenging, and multifactorial causes should be considered.



Submission ID: A-0199
Poster Viewing

Category: Doctor
Topic: Peritoneal Dialysis

FACTORS AFFECTING COMPLETE CURE AMONG CULTURE POSITIVE PERITONEAL DIALYSIS-ASSOCIATED PERITONITIS IN TERTIARY HOSPITALS IN KELANTAN.

Muhammad Nabil ABDULLAH¹, Azimah FAKRI², Tee Tat KHOO²,
Wan Hasnul Halimi WAN HASSAN²

¹ Clinical Research Centre Kelantan, Hospital Raja Perempuan Zainab II, Kota Bharu

² Department of Nephrology, Hospital Raja Perempuan Zainab II, Kota Bharu

Introduction:

Culture-positive peritoneal dialysis-associated peritonitis (PDAP) is a significant complication in patients undergoing maintenance peritoneal dialysis. This research aims to study associated factors for a complete cure among culture-positive PDAP patients.

Methodology:

This is a retrospective cohort study conducted at Hospital Raja Perempuan Zainab II and Hospital Pasir Mas, Kelantan. Patients who had culture-positive PDAP between January 2021 to June 2023 were enrolled in the study. Factors associated with complete cure were analyzed using univariable analysis.

Results:

A total of 139 episodes of PDAP occurred in 118 patients within the study duration. Of these, 82 (59%) episodes were completely cured of peritonitis (CP) while 57 (41%) episodes were not cured (NCP). Complete cure is defined as complete resolution without catheter removal, transfer to hemodialysis, or salvage antibiotics within 120 days. Outcomes for NCP episodes were either relapsed, had recurrent episodes, passed away, had medical Tenckhoff removed, or permanently transferred to hemodialysis (1.4%, 6.5%, 1.4%, 12.2%, 19.4%, respectively). The most common gram-positive and gram-negative causative organisms for CP episodes were *Staphylococcus aureus* and *Escherichia coli* (20.7% and 11.0%, respectively), while *Staphylococcus aureus* and *Pseudomonas* in NCP episodes (15.8% and 14%, respectively). Mean ages were almost similar between CP and NCP episodes (51.78 vs 50.62 respectively; $p=0.675$). CP episodes had more infection with gram-positive organisms compared to NCP episodes (61% vs 38.6%, respectively; $p=0.05$). A history of recent antibiotics used within 30 days was more common with NCP episodes compared to CP episodes (17.5% vs 6.1%, respectively; $p=0.032$).

Conclusion:

Our study showed a higher percentage of complete cure and a lower percentage of catheter removal compared to other study¹ (59% vs 45.7% and 12.2% vs 41.3, respectively). However, the findings in our study should be interpreted with caution due to the limitations of the smaller sample size.



Submission ID: A-0200
Poster Viewing

Category: Doctor
Topic: Glomerulonephritis

BIOPSY-PROVEN C3 GLOMERULOPATHY IN A YOUNG PATIENT: A CASE REPORT

Piem Jie Leong ¹, Yon Quan Chan ¹, Benjamin Wei Wang Tan ¹, Hemlata Kumari A/P
Gnanasegaram ², Koh Wei Wong¹

¹ Renal Division, Department of Medicine, Hospital Queen Elizabeth, Sabah, Malaysia

² Pathology Division, Hospital Kuala Lumpur, Malaysia

Introduction:

C3 Glomerulopathy (C3G) is a rare disease characterized by the presence of predominantly C3 glomerular deposits. This disorder is a result of dysregulation of the alternative pathway of the complement system. There are currently no rare disease registries in Malaysia to capture data on the incidence and prevalence as well as clinical characteristics and long term outcomes of C3G.

Case Report:

RJ, 15-year-old male with no known medical illness, presented with mixed nephrotic-nephritic syndrome. Initial blood results showed a serum creatinine of 95 $\mu\text{mol/L}$ and serum albumin of 14g/L. 24-hour urine sampling revealed heavy proteinuria of 3 gram/day. Complement 3 (C3) levels were low with normal Complement 4 levels. Autoimmune and infective workup were negative. A kidney biopsy was performed and showed a membranoproliferative pattern of glomerular injury with dominant C3 deposits. He was commenced on renin-angiotensin-aldosterone system inhibitors, glucocorticoid and mycophenolate mofetil. Despite immunosuppressive therapy, he did not show any signs of remission. His kidney function continued to show progressive decline.

Conclusion:

C3G is an ultra-rare form of primary glomerulonephritis in young patients with an estimated incidence of 1-2 cases per million per year. It should be considered as a differential diagnosis in a young patient with persistently low C3 levels in the background of nephrotic-nephritic syndrome. The lack of a meaningful clinical response to immunosuppressive therapy, as evident in this case, may be regarded as a poor prognostic marker to predict disease progression and outcome of C3G. KDIGO suggests that in the absence of a monoclonal gammopathy, C3G with moderate-to-severe disease should be treated initially with mycophenolate mofetil plus glucocorticoids and if fails, Eculizumab should be considered. The rarity of this disease certainly poses significant burden and challenges in terms of management as there is currently no approved treatment not just in Malaysia but worldwide.

Submission ID: A-0201
Poster Viewing

Category: Doctor
Topic: Haemodialysis

THE TYPE OF VASCULAR ACCESS AND THE BURDEN OF CRBSI AS THE CAUSE OF DEATH AMONG MALAYSIAN HAEMODIALYSIS PATIENTS- MALAYSIAN DIALYSIS AND TRANSPLANT REGISTRY DATA

Maisarah JALALONMUHALI¹, Shanaz SHAH FIRDAUS KHAN², Rosnawati YAHYA³, Kah Mean THONG⁴, Cheh Loo CHOO⁵, Sunita BAVANANDAN⁶, Loke Meng ONG³, Lai Seong HOOI³

¹ Department of Medicine, Faculty of Medicine, University Malaya, Kuala Lumpur, Malaysia.

² Department of Nephrology, Hospital Tengku Ampuan Rahimah, Klang, Selangor, Malaysia.

³ Sunway Medical Centre, Subang Jaya, Selangor, Malaysia.

⁴ Nephrology Unit, Department of Medicine, Hospital Raja Permaisuri Bainun, Ipoh, Perak, Malaysia.

⁵ National Renal Registry, Malaysia.

⁶ Department of Nephrology, Hospital Kuala Lumpur, Kuala Lumpur, Malaysia.

Introduction:

The prevalence and incidence of end-stage kidney diseases (ESKD) are rising. Data from USRDS demonstrated that cardiovascular disease is a leading cause of death, followed by dialysis withdrawal and infection among ESKD. In Malaysia, a dialysis catheter is one of the HD vascular access options. Thus, this study aims to examine the type of vascular access among our ESRD cohort and the burden of catheter-related bloodstream infection (CRBSI) as the cause of mortality.

Methodology:

A retrospective study was conducted among all prevalent HD patients reported in the Malaysian Dialysis and Transplant Registry (MDTR) between 1st January 2012 and 31st December 2022—the data retrieved included their demographic, primary disease for ESKD, date of dialysis initiation and existing vascular access. The reported mortality was retrieved and merged from the MDTR and the National Registration Department.

Results:

The total number of patients who remained on HD at the end of 31st December 2022 was 45 045. In 2022, 22% of HD patients were either on cuffed or uncuffed catheters as vascular access. While the total number of reported deaths was 6853 in the HD cohort in the same year. Infections, as a leading cause of death, has superseded cardiovascular disease in our HD cohort, with an increasing trajectory trend being observed. CRBSI, as the leading COD, was reported in 130 (1.9%) patients, which was also rising compared with the last ten years' data. Moreover, among those HD patients who died because of other sources of infection besides CRBSI and COVID-19, 31% of them were using catheters as vascular access. Those who had died because of CRBSI had a relatively shorter HD duration compared with other sources of infection.

Conclusion:

Infection was found to be the leading cause of death in HD patients in our cohort, with an increasing number of CRBSI-related mortality.

Submission ID: A-0202
Oral Presentation

Category: Doctor
Topic: Haemodialysis

RELATIONSHIP BETWEEN C- REACTIVE PROTEIN (CRP) AND CARDIOVASCULAR EVENTS, HOSPITALIZATION, MORTALITY AMONG END STAGE KIDNEY DISEASE (ESKD) PATIENT'S UNDERGOING REGULAR HAEMODIALYSIS.

Logaruban Aravan ¹, Khaizatul Azreen Kamaruzaman ¹, Christopher Thiam Seong Lim ²,
Fairul Huda ¹, Bak Leong Goh ¹

¹ Nephrology Department, Hospital Sultan Idris Shah, Serdang, Malaysia.

² Nephrology Unit, Department of Medicine, Universiti Putra Malaysia, Malaysia.

Introduction:

CRP is a substance produced by the liver, found to be elevated in patients with kidney failure due to chronic inflammation. Our study objective focuses on examining the purported link between elevated CRP levels (>10 mg/L) and adverse cardiovascular outcomes.

Method:

A prospective study focusing on prevalence of ESKD patients on regular haemodialysis for more than 3 months at a tertiary hospital haemodialysis unit between January 2022 and December 2023. Inclusion criteria was availability of baseline CRP, meanwhile patients with active infections were excluded from study.

Results:

In our study, 82 patients met the criteria, with 15 (18.2%) exhibiting elevated CRP levels averaging 18.8 mg/L and an average dialysis vintage of 7.5 years. Among the population, 20 cardiovascular events (13.2%) occurred, with a notably higher proportion (53.3%) in patients with elevated CRP levels, and 75% of them succumbed to these events. Overall mortality was 28%, rising to 40% among those with elevated CRP levels. Patients with elevated CRP levels had a 1.5 times higher relative risk of hospital admissions compared to those with normal CRP levels. The mean Hb was 10.2 g/dl among CRP normal patients and 9.8 g/dl among those with elevated CRP levels. Moreover, the mean parathyroid hormone (PTH) level was 1.7 times higher in the elevated CRP group (107 pg/L) than in the CRP normal group (62.2 pg/L), indicating a potential influence of elevated CRP levels on PTH secretion, while serum calcium and phosphate levels showed no significant difference between both groups.

Conclusion:

Statistically significant correlation observed between elevated CRP level and prevalence of cardiovascular events, hospitalization and mortality risk among haemodialysis patients. However, further research needed to elucidate the mechanisms linking CRP to cardiovascular complications and to identify effective strategies for inflammation management and cardiovascular risk reduction in this population.



Submission ID: A-0203
Poster Viewing

Category: Doctor
Topic: Haemodialysis

A RETROSPECTIVE STUDY ON THE EPIDEMIOLOGY AND OUTCOME OF CONTINUOUS RENAL REPLACEMENT THERAPY (CRRT) IN THE INTENSIVE CARE UNIT (ICU) CARE OF A TERTIARY HOSPITAL

Logaruban Aravan ¹, Muhammad Imran Kamarudin ¹, Wan Hasnul Halimi Wan Hassan ¹

¹ Nephrology Department, Hospital Raja Perempuan Zainab II, Kota Bharu, Kelantan, Malaysia

Introduction:

CRRT has been integrated into critical care management, irrespective of the presence of pre-existing renal conditions. The incidence of Acute Kidney Injury (AKI) among ICU-admitted patients ranges from 30% to 60%. CVVH had been the treatment of choice with 58%. Our study is centered on investigating the epidemiology and outcomes associated with CRRT.

Methodology:

During the study period spanning from July 1st, 2021 to June 30th, 2022, a retrospective cohort investigation was conducted involving adult patients admitted to the ICU of a tertiary hospital who experienced kidney dysfunction and necessitated CRRT.

Results:

A total of 103 patients met the study criteria, the majority of whom were over 50 years old (68%), with a mean age of 56.5 years. The study population exhibited a high prevalence of comorbidities, with diabetes mellitus and hypertension being the most common (55.3%), followed by chronic kidney disease (CKD) (26.2%). Sepsis was identified as a significant factor in 97.1% of patients requiring continuous renal replacement therapy (CRRT). Continuous Veno-Venous Haemodialysis (CVVH) was the most commonly prescribed type of CRRT, accounting for 79.6% of cases. Only 14.6% of CRRT sessions lasted more than 24 hours, while 35.9% were terminated in less than 6 hours. This pattern may be attributed to the limited use of anticoagulants due to a heightened risk of bleeding. Furthermore, our study also observed a notably high mortality rate among the study population, reaching 96.2%.

Conclusion:

Initiating CRRT in ICU care was prevalent among individuals aged more than 50 years old and over half of the study cohort had comorbidities. The duration of CRRT was suboptimal, often ending prematurely, leading to a low rate of patient survival. Additional research with larger cohorts is necessary to investigate the variables affecting the duration of CRRT, with the potential to enhance overall patient survival rates.

Submission ID: A-0204
Poster Viewing

Category: Doctor
Topic: Haemodialysis

SHORT-TERM OUTCOMES FOLLOWING INTERNAL JUGULAR VEIN (IJV) TUNNELED CUFFED CATHETER (TCC) INSERTION IN CHRONIC HEMODIALYSIS(HD) PATIENTS WITHOUT FUNCTIONING ARTERIOVENOUS FISTULAS (AVF): A DESCRIPTIVE REVIEW

HY Yeoh¹, Kamarudin MI¹, Yakob S¹

¹Nephrology Department Hospital Kuala Lumpur

Introduction:

Tunneled Cuffed Catheter (TCC) serves as an alternative vascular access for chronic hemodialysis (HD) patients without functioning AVF. Both non-infective and infective complications are well described in usage of TCC.

Objective:

To analyse the three-month outcomes following the insertion of TCC in IJV among chronic HD patients with no functioning AVF at our centre.

Methodology:

We conducted a retrospective cross-sectional review of medical records for patients who underwent IJV TCC insertion in the outpatient procedure room at Hospital Kuala Lumpur from 1st January 2023 to 31st December 2023. Data on complications and outcomes within three months post-insertion were collected and analyzed.

Result:

This study reviewed 83 patients needing IJV TCC insertion with the primary indication for catheter placement was the absence of suitable veins for AVF creation. Catheter-related bloodstream infections (CRBSI) developed in 25 patients (30.1%) within 3 months of insertion. The organism-culture predominated by methicillin-sensitive *Staphylococcus aureus* (MSSA) (12%), meanwhile 52% of CRBSI cases had negative blood cultures. Additionally, 21 patients (25.3%) were readmitted due to non-functioning catheters, and 8 patients (9.6%) required immediate referral to interventional radiology for malposition or other complications post-insertion. There were 2 mortalities (2.4%) reported in the cohort, both due to severe septic shock secondary to CRBSI.

Conclusion:

The incidence of CRBSI within 3 months post-insertion of IJV TCC in our center (30.1%) is lower compared to the rates reported in other literature (35%, Shingarev R et al. 2013). Despite this, there remains a critical need to reduce complications associated with dialysis catheters. Strategies to achieve this include timely AVF creation, early transitioning suitable patients to peritoneal dialysis and continuous efforts in preventing CRBSI.



Submission ID: A-0205
Poster Viewing

Category: Doctor
Topic: Haemodialysis

DESCRIPTIVE ANALYSIS OF INTERNAL JUGULAR VENOUS CATHETER FRACTURE CASES AMONG HEMODIALYSIS- DEPENDENT PATIENTS IN A DISTRICT HOSPITAL IN KELANTAN

Mahzalena AZIZ'S¹, Nur Adila Husna SHAMSUL KAMALRUJAN¹, Norihan ZAWAHID¹,
Muhammad Nabil ABDULLAH², Wan Hasnul Halimi WAN HASSAN³

¹ Hospital Gua Musang, Gua Musang, Kelantan ² Clinical Research Centre Kelantan, Hospital
Raja Perempuan Zainab II, Kota Bharu, Kelantan ³ Department of Nephrology,
Hospital Raja Perempuan Zainab II, Kota Bharu, Kelantan

Introduction:

It was alleged that Hospital Gua Musang, Kelantan has had a high incidence of fractured catheter for the past one year. Therefore, this study was conducted to describe patients' characteristics, clinical and laboratory parameters, and outcomes.

Methodology:

A retrospective review of fractured IJC catheter cases occurred among dialysis patients in Hospital Gua Musang, Kelantan was conducted. Medical records of cases from December 2022 until February 2024 were reviewed and analyzed using descriptive analysis.

Results:

A total of 32 episodes of fractured IJC catheter occurred in 11 patients during the study period that gave a proportion 14.3% of total catheter inserted. Elderly patients aged more than 60 years old were more common (63.6%) with majority of patients completed secondary school level, followed by primary school and diploma (72.7%, 18.2%, 9.1% respectively). Assessed by healthcare provider, only two of them had good level of catheter selfcare while the other seven and two patients had moderate and poor level, respectively. The study site used Brand A for the first 7 months of study duration before changing to Brand B. There was an equal 16 number of events occurred for both brands. Overall median time for duration of catheter inserted until event occurred was 49 days. However, Brand A showed longer median time compared to Brand B (53.5 days vs 24.5 days, respectively). Most of the outcomes were changed to same catheter brand, followed by changed to another brand and changed to permanent catheter (81.3%, 12.5%, and 6.3% respectively).

Conclusion:

Descriptive analysis showed a higher percentage of fractured catheter occurred in older age, low education level, and moderate to poor catheter selfcare, while equal prevalence between Brand A and Brand B. Further inferential analysis should be conducted in future.



Submission ID: A-0206
Poster Viewing

Category: Doctor
Topic: Peritoneal Dialysis

FLUOROSCOPY AND STYLET-GUIDED PERITONEAL DIALYSIS CATHETER EXCHANGE AS A DIAGNOSTIC AND INTERVENTIONAL MODALITY FOR MALFUNCTIONED TENCKHOFF CATHETER SECONDARY TO OMENTAL WRAP: A CASE REPORT

Hwai Jing ENG¹, Chee Eng CHAN²

¹Department of Medicine, Hospital Sultan Haji Ahmad Shah Temerloh

²Department of Renal Medicine, Hospital Hengku Ampuan Afzan Kuantan

Introduction:

Omental wrapping is a common cause of Tenckhoff catheter malfunction, often necessitating surgical intervention. Considerable waiting time may cause patient disengagement from PD and shift to hemodialysis. We present a case of malfunctioning peritoneal catheter due to omental wrapping which was diagnosed through contrasted fluoroscopic examination. A fluoroscopy-assisted-stylet-guided Tenckhoff catheter exchange was performed, with favourable outcomes.

Case Report:

A 52-year-old gentleman with HIV infection was diagnosed with ESKD secondary to diabetic kidney disease in March 2022. He opted for PD and underwent ultrasound-guided percutaneous peritoneal catheter insertion. Correct placement was confirmed via x-ray. He contracted COVID-19 shortly after and was hospitalised. He suffered from constipation and delayed initiation of PD. Subsequent catheter flushing revealed sluggish inflow and no outflow. Repeated X-rays revealed migrated catheter. Omental wrap was suspected. Surgical readjustment under laparoscope was proposed but COVID-19 outbreak resulted in lengthy OT waiting times. His HIV-positive-status limited his options for hemodialysis centres. Under aseptic technique, contrast was infused into the catheter under real-time fluoroscopic guidance. Pooling of contrast suggested an omental wrap. The cuffs were released and stiff-stylet was carefully advanced into the catheter to redirect its position without breaching its limits. The existing Tenckhoff catheter was removed. The stylet was manipulated towards the pelvic cavity. New Tenckhoff catheter was inserted. Its placement was confirmed via fluoroscopy. The stylet was removed. Catheter flushing demonstrated good inflow and outflow. The patient was able to continue with peritoneal dialysis till today.

Discussion:

Fluoroscopy and stylet-guided peritoneal dialysis catheter exchange is an effective diagnostic and interventional modality to address malfunctioning Tenckhoff catheters secondary to omental wrap. This less invasive approach proved invaluable in the context of pandemic-related constraints and the patient's HIV-positive status. Further exploration of minimally invasive techniques such as fluoroscopy-guided interventions in challenging cases may offer promising avenues in patient care.



Submission ID: A-0207
Poster Viewing

Category: Doctor
Topic: Haemodialysis

PATTERNS OF ARTERIOVENOUS FISTULA CREATION AMONG PATIENTS UNDERGOING UNPLANNED DIALYSIS

Chu Hong Tang¹, Kar Wah Fuah¹, Christopher Thiam Seong Lim², Fairol Huda Ibrahim¹,
Bak Leong Goh¹

¹Department of Nephrology, Hospital Sultan Idris Shah Serdang, Malaysia

²Nephrology Unit, Faculty of Medicine and Health Sciences, Universiti Putra Malaysia, Malaysia

Introduction:

Arteriovenous fistula (AVF) stands as the gold standard vascular access for hemodialysis (HD) due to its enduring patency and lower complication rates compared to other access. However, in scenarios of unplanned dialysis, uncuffed internal jugular catheter (IJC) insertion emerges as common recourse. This study aims to elucidate the characteristics and outcomes of AVF creation among patients undergoing unplanned dialysis in our centre.

Methodology:

A retrospective cohort study of patients undergoing unplanned dialysis who opted for HD as their long-term kidney replacement therapy that were admitted to HSIS Serdang from January 2022 to December 2022. AVF creation patterns were collected through EHIS over 1 year, with data analyzed using SPSS Statistics 26.0.

Results:

A total of 87 patients were identified, with mean age of 53 ± 13.4 years. 85% of patients required IJC insertion prior to AVF creation. 60 patients (69%) had AVF creation, including brachiocephalic fistula (36%), radiocephalic fistula (29%), and brachiobasilic fistula (4%). The mean duration of AVF creation upon referral was 48 ± 46 days. AVF creation was performed by the in-house vascular team in 40 cases (68%), with a waiting period of 63 ± 53 days. The outsourcing program (22%) had waiting time of 20 ± 7 days, while private centres (10%) reported a waiting period of 39 ± 15 days. Notably, 31% of patients did not undergo AVF creation, with 21% experiencing mortality and 9% deemed unsuitable due to vessel conditions. The overall AVF creation success rate was 56%.

Conclusion:

Despite AVF being the preferred vascular access for HD, only 15% of patients undergoing unplanned dialysis underwent AVF creation before dialysis initiation. Strategies to combat this include public awareness and education on chronic kidney disease with early kidney life plan discussion to prevent unplanned start of dialysis. The implementation of AVF outsourcing programs holds promise for enhancing AVF creation rates in this population.

Submission ID: A-0208
Poster Viewing

Category: Doctor
Topic: Transplant

ACQUIRED PRCA SECONDARY TO PARVOVIRUS B19 INFECTION POST KIDNEY TRANSPLANT

H Aizat¹, MS Fu¹, WJ Liu¹, Sy Wee²

¹ Department of Internal Medicine and Nephrology, Hospital Sultanah Aminah,
Johor Bahru, Malaysia

² Department of Pathology, Hospital Sultanah Aminah Johor Bahru

Introduction:

Acquired PRCA secondary to Parvovirus B19 infection is a rare complication of solid organ transplant. We report a case of acquired PRCA secondary to Parvovirus B19 infection in a kidney transplant patient which was treated with IV Immunoglobulin

Clinical Case:

44 years old Chinese lady with background End-stage kidney disease of unknown primary aetiology, with dialysis vintage of 22 years. She received cadaveric kidney transplant on 14th November 2023, intraoperatively was uneventful with immediate graft function. She has immunological risk of PRA positive and was given induction with Basiliximab. Since January 2024, patient was noted to have a progressive decline of Haemoglobin level despite on erythropoietin injection, from baseline Hb of around 10g/dL to lowest 4.9g/dL requiring multiple packed cells transfusion. Esophagogastroduodenoscopy showed hiatus hernia with no evidence of bleeding. Blood investigation revealed reticulocytopenia of 0%, Parvovirus PCR was positive, and Bone marrow aspirate showed mildly hypocellular marrow with erythroid hypoplasia and maturation arrest suggestive of PRCA. Trepine biopsy revealed giant erythroblast with intranuclear viral inclusion and immunohistochemical stain for parvovirus B19 was positive. She was treated with IV Immunoglobulin of 2g/kg for 5 days. Currently, despite IVIG treatment, she is still anaemic, with Hb ranging around 6-7g/dL requiring intermittent packed cells transfusion.

Conclusions:

Parvovirus B19 is a rare cause of PRCA in solid-organ transplant patients with limited treatment available.



Submission ID: A-0209
Poster Viewing

Category: Doctor
Topic: Infections

CAUGHT IN THE CLOT: A CASE REPORT OF ATRIAL THROMBUS FORMATION

Mohd Hafiz Mohd PADZIL¹, Jer Ming LOW¹

¹Department of Internal Medicine, Hospital Sultan Haji Ahmad Shah, Malaysia

Introduction:

Haemodialysis catheters are frequently used in end-stage kidney disease (ESKD) patients on haemodialysis (HD). Complications have been associated with their placement and usage. In this case report, we present an uncommon case large right atrial mass suspicious of thrombus associated with a tunneled haemodialysis catheter complicated with infective endocarditis.

Case Report/Results:

A 46 years-old lady was diagnosed with ESKD since October 2023. She was started on HD via non-tunneled dialysis catheter which was converted to tunneled dialysis catheter since March 2024. In May 2024, she was referred to our center for symptomatic renal anaemia. Upon admission, a murmur was detected and in view of immunocompromised state, empirical antibiotics were initiated for presumed catheter-related bloodstream infection. Bedside echocardiography showed a suspicious right atrial mass and prompted an urgent formal echocardiography which showed a right atrial mass measuring 2.5cm x 2.0cm in size arising from tip of tunneled catheter. Vegetation was noted over the aortic valves. Blood cultures grew *Staphylococcus Lugdonensis* from both peripheral and catheter hub simultaneously and diagnosis of infective endocarditis with catheter-related right atrial thrombus (CRAT) was made. To date, she is receiving appropriate intravenous antibiotics according to sensitivity and pending multidisciplinary team discussion with our nephrology, cardiology and cardiothoracic surgery team whereby mainstay of management will be catheter removal.

Discussion:

There is limited literature on the optimal management of infective CRAT. Literature review showed current treatment options consist of catheter removal, anticoagulation and/or surgical thrombectomy. Despite these intervention, haemodialysis CRAT is associated with significant mortality.

Conclusion:

Overall mortality for infective CRAT remains high. All ESKD patients who opted for HD should have an arteriovenous fistula prior to initiation. If not, these patients should be counselled for peritoneal dialysis (PD) in line with current national direction for PD first policy for new ESKD.



Submission ID: A-0210
Poster Viewing

Category: Doctor
Topic: Glomerulonephritis

A CASE REPORT OF MEMBRANOUS NEPHROPATHY WITH RAISED ANTI-PHOSPHOLIPASE A2 RECEPTOR ANTIBODIES IN A PATIENT WITH HEPATITIS B VIRUS INFECTION

Krinath Renganadan, Maisarah Jalalonmuhali

Nephrology Unit, Department Of Medicine, Faculty Of Medicine,
University Malaya, Kuala Lumpur, Malaysia

Introduction:

Nephrotic syndrome is caused by increased permeability across the glomerular filtration barrier. Membranous nephropathy (MN) is the most common cause of nephrotic syndrome. MN reflects a pattern of injury found by histopathologic examination of renal biopsy. MN in adults can either be primary originating from circulating autoantibodies against podocyte antigens or secondary from infections, autoimmune diseases, malignancies and drugs. Here, we describe a case of a patient with Hepatitis B virus infection who presented with membranous nephropathy.

Case Presentation:

A 58-year-old man presented with persistent bilateral lower limb swelling for one month. He had no symptoms of infection or organ failure. He denied risk factors for malignancies or autoimmune diseases. Clinical examination was unremarkable. Laboratory test revealed heavy proteinuria with urine protein creatinine ratio (uPCR) of 1163 mg/mmol creatinine and packed filled red blood cell in urine. Renal Function test were normal with urea 7.5 mmol/L and creatinine 78 umol/L. Autoimmune and vasculitis screening were negative. Hepatitis B screening was detected positive with hepatitis B viral load of 11116 IU/mL. Renal biopsy confirmed membranous nephropathy. Treatment with T. Entecavir was initiated. However, despite 3 months of Hepatitis B treatment initiation and suppression of HBV DNA, there was no any significant improvement. Serum creatinine worsened to 218umol/L. Anti-Phospholipase A2 receptor antibodies were tested and found to be elevated of >1500 Ru/ml suggesting primary membranous nephropathy. IVI Rituximab monotherapy was administered for a total of 9 doses over 16 months resulting in significant improvements in urine protein creatinine ratio and Anti-Phospholipase A2 receptor antibodies with values of 152.5mg/mmol creatinine and 0.6 respectively.

Conclusion:

This case report illustrates challenges in the treatment of patients with hepatitis B infection having membranous nephropathy. Despite suppression of Hepatitis B viral load and low CD19 level, IVI Rituximab shows successful therapy without any hepatitis B flare.

Submission ID: A-0212
Poster Viewing

Category: Doctor
Topic: Glomerulonephritis

A CASE OF MEMBRANOPROLIFERATIVE GLOMERULONEPHRITIS WHO GETS PREGNANT

Nur Nadzifah Hanim ZAINAL ABIDIN¹, Nuzaimin Hadafi AHMAD¹, Yong Fatt CHENG¹,
Nur Maizura KHAFI²

¹ Nephrology Unit, Hospital Pakar Sultanah Fatimah, Muar, Johor;

² Department of Internal medicine, Hospital Segamat

Introduction:

Membranoproliferative Glomerulonephritis is a rare disorder. A patient with preexisting MPGN who gets pregnant requires careful management to prevent complications

Case Report:

A 30-year-old woman was diagnosed with Idiopathic Membranoproliferative Glomerulopathy in 2015. All secondary work up was negative. She was started on ciclosporin and tapering dose steroid since diagnosed. Despite optimized antiproteinuric therapy, she consistently experienced overt proteinuria ranging from 2-3g per day, with albumin levels of 33-39 g/L, while her creatinine levels remained normal, ranging from 65-76 mmol/L. Due to compliance issues, ciclosporin was withheld since 2021. A repeat kidney biopsy with Electron Microscopy in 2021 showed features consistent with non-immune-mediated lobular glomerulopathy with massive mesangial and subendothelial electron-dense deposits, favoring the diagnosis of fibronectin glomerulopathy. Unfortunately, fibronectin immunohistochemistry study was not available to confirm the diagnosis. Prednisolone was withheld. In September 2023, she had her first pregnancy. Throughout pregnancy, her 24-hour urine protein remained at 2-3g/day, with stable creatinine levels ranging from 80-90, which only increased to 153 at 37 weeks. She was planned for delivery via lower segment caesarean section at 37 weeks and 1 day, giving birth to a baby boy weighing 2.45kg. A subsequent follow-up in the clinic 6 weeks postpartum revealed a creatinine level of 111 and 24-hour UP of 2g.

Discussion:

Pregnancy in women with MPGN in previous limited studies shows a particularly high risk of severe maternal and fetal outcomes. Treatment options include oral corticosteroids, methylprednisolone pulses, azathioprine, and calcineurin inhibitors. In patients with crescentic, rapidly progressing GN, eculizumab is an option since Cyclophosphamide is contraindicated in pregnancy. ACE inhibitor or ARB is contraindicated in pregnancy. The use of SGLT2s in pregnancy is still poorly documented. Early delivery shall be planned.

Conclusion:

Management of MPGN in pregnancy requires a multidisciplinary approach. More studies and trials are needed



Submission ID: A-0213
Poster Viewing

Category: Doctor
Topic: Glomerulonephritis

CASE SERIES OF OUTCOME OF RENAL DISEASE IN PREGNANCY

Sharifah Nursamihah SYED ABD RAHMAN¹, Wan Hasnul Halimi WAN HASSAN^{1,2}

¹ Nephrology Department, Hospital Raja Perempuan Zainab II, Kelantan, Malaysia, Ministry of Health.

² Clinical Research Centre (CRC) Kelantan, Hospital Raja Perempuan Zainab II, Kelantan, Malaysia, Ministry of Health.

Introduction:

Woman may first diagnosed to have renal disease during pregnancy. Pregnancy with renal disease is at risk for adverse maternal and fetal outcome. There are risk for worsening renal function, proteinuria, pre-eclampsia and intra-uterine growth restriction.

Methodology:

Medical record of cases of pregnancy with renal disease were reviewed.

Results:

We report 8 cases of pregnancy with renal disease at our centre in 3 months duration, including IgA nephropathy (n=4) and lupus nephritis (n=4). These 4 cases of IgA nephropathy are newly diagnosed during this pregnancy which presented with hemoproteinuria. At presentation, 2 cases had moderate renal impairment, one case had mild renal impairment and one case normal creatinine. One case of moderate renal impairment required hemodialysis during pregnancy and continued post-partum. Meanwhile the other 2 cases of renal impairment improving postpartumly, and one case remain normal creatinine. In term of proteinuria, one case improving, one case worsening and 2 cases proteinuria remain static. All 4 cases had pre-term delivery due to pre-eclampsia. There are 4 cases of lupus nephritis. Creatinine of all cases (n=4) were normal. Two out of 4 cases are newly diagnosed lupus nephritis during this pregnancy which presented with hemoproteinuria and both cases were started on Prednisolone. One out of two newly diagnosed lupus nephritis required termination of pregnancy at 25 weeks period of amenorrhea for worsening proteinuria. The other 2 cases had underlying lupus nephritis since pre-pregnancy, and had proteinuria worsening at third trimester and underwent emergency lower segment caesarian- section for pre-eclampsia.

Conclusion:

Pregnancy with renal disease is at risk of worsening renal function and proteinuria during pregnancy, and at risk of pre-term delivery.



Submission ID: A-0214
Poster Presentation

Category: Doctor
Topic: Others : Chronic Kidney Disease

HEALTHCARE PROVIDERS' PERSPECTIVES ON FACILITATORS AND BARRIERS TO CKD MANAGEMENT: A MIXED METHODS STUDY AT PRE-IMPLEMENTATION PHASE ON THE UTILISATION OF KFRE AS A RISK-BASED TRIAGE FOR NEPHROLOGY REFERRALS IN UMMC

Nur Raziana ROZI¹, Christine Shamala SELVARAJ², Jia Kai TAN³, Zhan Foong LIM³, Noor Wahidah NORDIN³, Nuqman Hakimi MAZHAR³, Haris RAFIZAL³, Hooi Chin BEH², Yin Guat OOI³, Adina ABDULLAH², Wan Ahmad Hafiz WAN MD ADNAN³, Pavai STHANESWAR³, Soo Kun LIM³, Lee Ling LIM³

¹Department of Medicine, Kulliyah of Medicine, International Islamic University Malaysia (IIUM), Kuantan, Malaysia

²Department of Primary Care Medicine, Faculty of Medicine, Universiti Malaya, Kuala Lumpur, Malaysia

³Department of Medicine, Faculty of Medicine, Universiti Malaya, Kuala Lumpur, Malaysia

⁴Department of Pathology, Faculty of Medicine, Universiti Malaya, Kuala Lumpur, Malaysia

Introduction:

Chronic kidney disease (CKD) poses a significant health challenge globally. The burden is rising with a local prevalence of 15.5%. There is limited understanding of the challenges and opportunities to enhance CKD management from the perspectives healthcare providers' (HCP) involved in the direct care of patients with CKD. To integrate a risk-based triage for nephrology referrals, we explored HCPs' perspectives on the facilitators and barriers to CKD management before its implementation.

Methodology:

We used a mixed method approach to explore HCPs' perspectives on the 1) facilitators and barriers to CKD management, and 2) perceived benefits and challenges of implementing a risk-based triage using the kidney failure risk equation (KFRE) to guide nephrology referrals in the University Malaya Medical Centre (UMMC). Interviews were audio recorded, transcribed verbatim and thematically analyzed. Quantitatively, provider job satisfaction surveys were performed.

Results:

Interviews were conducted among 25 HCPs from the three main CKD care providers groups (primary care, nephrology and endocrinology). The facilitators and barriers' themes were identified. The top three barriers to CKD management were suboptimal patient insights, gaps in practices and confidences and healthcare system shortfalls. By contrast, a good interdisciplinary network and accessibility to specialist resources were the key facilitators. They underscored the importance of human resources empowerment, continuous patient education and structured interdisciplinary collaboration. Overall, 111 HCPs completed the surveys with the majority being mostly satisfied with the physical surroundings, co-workers and supervision received. Mixed responses were expressed about the amount of work and equipment provided. HCPs perceived risk-based triage using the KFRE potentially useful for a more targeted care which necessitates further refinement.

Conclusion:

We identified several potentially modifiable challenges and facilitators warranting attention to improve health outcomes of patients with CKD. A risk-based triage approach using the KFRE appears promising in facilitating targeted nephrology referrals for better care and resource allocations.

Submission ID: A-0215
Oral Presentation

Category: Doctor
Topic: Glomerulonephritis

THE UTILITY OF CD68+ AND CD206+ GLOMERULAR MACROPHAGES INFILTRATION ASSESSMENT TO EVALUATE ENDOCAPILLARY HYPERCELLULARITY AND IMMUNOSUPPRESSION TREATMENT RESPONSE IN PATIENTS WITH IGA NEPHROPATHY

Nur Raziana ROZI¹, Tak Kuan CHOW², Soo Kun LIM³

¹Department of Medicine, Kulliyah of Medicine, International Islamic University Malaysia (IIUM),
Kuantan, Malaysia

²Department of Pathology, Faculty of Medicine, Universiti Malaya, Kuala Lumpur, Malaysia

³Department of Medicine, Faculty of Medicine, Universiti Malaya, Kuala Lumpur, Malaysia

Introduction:

The highly variable course of IgA nephropathy (IgAN) poses a major clinical challenge. Endocapillary hypercellularity which is one of the parameters in IgAN prediction tool (IgANPT) risk scoring carries prognostic significance independently. Patients with biopsies score of E1 (presence of endocapillary hypercellularity) are more likely to receive immunosuppression. Nevertheless, its reproducibility is debatable and thus, an objective marker to assign endocapillary hypercellularity accurately is essential. Hence, we aimed to investigate the utility of glomerular macrophages assessment via CD68 and CD206 immunohistochemistry (IHC) staining in identifying endocapillary hypercellularity and its correlation with immunosuppression treatment response.

Methodology:

We performed a prospective, cohort study of all biopsy-proven IgAN in 2011 and 2022 in University Malaya Medical Centre. Out of 22 biopsies, 5 (23%) cases of E1 identified. They were stained with CD68 and CD206 to quantify the glomerular macrophages and compared to the control groups (E0). The high-risk patients receiving immunosuppression were followed-up and the correlations between treatment response and CD68/206 positivity were also analysed.

Results:

The mean glomerular CD68+ cells per glomerulus was significantly higher in glomeruli with endocapillary hypercellularity; 1.35 (± 0.38), ($p=0.028$). The area under the ROC curve was 0.92 demonstrating excellent discrimination. Using the objective cut-off value of 1.04, E1 can be predicted with a sensitivity of 60% and specificity of 80%. Among these patients, 6 underwent corticosteroid therapy for a duration of 6 months (due to persistent urinary protein excretion of ≥ 3 g/day despite 3 months of optimized supportive care). At 12 months of follow-up, 4 were responders (complete and partial remission) with a statistically significant higher total glomerular CD206+ cells ($p=0.05$) and CD206+max ($p=0.046$).

Conclusion:

In this study, we were able to demonstrate that identification of glomerular CD68+ and CD206+ macrophages by immunohistochemistry to assess endocapillary hypercellularity and predict immunosuppressive therapy response seems to be a promising approach to guide clinical decision.



Submission ID: A-0216
Poster Presentation

Category: Doctor
Topic: Haemodialysis

EXPLORING THE OBESITY PARADOX IN UNPLANNED DIALYSIS: FACT OR MYTH?

Chu Hong Tang¹, Pui Leng Choi¹, Kar Wah Fuah¹, Christopher Thiam Seong Lim²,
Fairol Huda Ibrahim¹, Bak Leong Goh¹

¹Department of Nephrology, Hospital Sultan Idris Shah Serdang, Malaysia

²Nephrology Unit, Faculty of Medicine and Health Sciences, Universiti Putra Malaysia, Malaysia

Introduction:

Obesity paradox has intrigued clinicians, as obesity has been associated with improved survival in end-stage kidney disease (ESKD) patients. However, the extent of this benefit in unplanned dialysis patients remains unclear. This study aims to elucidate the relationship between obesity and survival outcomes in patients undergoing unplanned dialysis initiation.

Methodology:

A retrospective cohort study of patient with unplanned dialysis who opted for hemodialysis (HD) as long term kidney replacement therapy that was admitted to HSIS Serdang from January 2022 to December 2022. Demographic data and outcomes were collected through EHIS and followed up for one year duration. Obesity was defined as body mass index (BMI) > 25 kg/m², according to Asia Pacific classification. Data was analysed using SPSS Statistics 26.0.

Results:

A total of 87 patients with mean age were 53 ± 13.4 years. 50 were obese (57.4%). Median BMI was 29.9 ± 5.2 for obese group and 21.4 ± 2.5 for non-obese group. Common comorbidities for obese group included hypertension (96%), diabetes mellitus (86%), ischemic heart disease (18%), and stroke (10%). CRBSI rate was higher in the obese group (28%) compared to the non-obese group (19%). AVF success rates were slightly higher in the non-obese cohort (60%) compared to the obese group (56%). Notably, mortality rates were slightly higher in the obese group (34%) compared to the non-obese group (27%). However, all these differences were not statistically significant.

Conclusion:

Our study did not find evidence of a survival advantage associated with obesity in unplanned dialysis patients. Plausible explanations include small study cohort with other confounding factors like volume overload, anemia, and uremic toxicity may exert a stronger influence on mortality outcomes, overshadowing any potential benefits conferred by obesity. Further research with larger cohorts is needed to understand better the complex relationship between obesity and survival in this population.



Submission ID: A-0217
Poster Viewing

Category: Doctor
Topic: Others : CKD

CLINICAL CHARACTERISTICS AND TREATMENT PATTERNS AMONG CHRONIC KIDNEY DISEASE IN MALAYSIA: REAL-WORLD INSIGHTS FROM iCaReMe DISCOVER-CKD REGISTRY.

Azrini Abdul Aziz,¹ Lydia Kamaruzaman,² Rozita Mohd,² Ruslinda Mustafar,² Wan Ahmad Hafiz
Wan Md Adnan,³ Lee Yee Wan,³ Cheng Shian Feng,³ Chew Chang Chuan,³ Ooi Shok Hoon,³
Thye Chee Keong,³ Raziana Rozi,³ Lim Soo Kun,³ Abdul Halim Abdul Gafor,²
Sunita Bavanandan.¹

Affiliations: ¹Hospital Kuala Lumpur, ²Faculty of Medicine Universiti Kebangsaan Malaysia,
³Universiti Malaya Medical Center

Introduction:

Chronic Kidney Disease (CKD) is a significant public health burden in Malaysia. There is crucial need for better understanding on treatment patterns that can potentially delay CKD progression. As part of the iCaReMe Global Registry (prospective, multicenter, observational), this study aims to generate real world data on patient's clinical characteristics, management patterns and associated outcomes among CKD patients. This paper is a preliminary descriptive report of the registry.

Methodology:

Consented patient's clinical data from 3 tertiary hospitals were collected into a cloud-based eCRF between October 2021 and February 2024. Baseline cross-sectional descriptive analysis of clinicodemographic characteristics and treatment patterns were conducted. Independent t-test was performed to compare the mean changes for eGFR of the different treatment modalities.

Results:

To date, 583 patients enrolled for the Malaysian cohort with mean (age 61.2 years, BMI of 27.7kg/m², HbA1C 6.89%, blood pressure of 139/74 mmHg) and 55.2% males. The mean eGFR was 38.4mL/min/1.73m² and the mean uACR was 705.31mg/g. Seventy-six percent were diagnosed as CKD stage 3-4. The common etiologies for CKD were hypertension, diabetes, dyslipidemia, coronary artery disease and heart failure (88%, 69.1%, 76.5%, 15.5% and 13% respectively). ACEi/ARB were given to 67.5% of patients while 15.5% were treated with SGLT2i. At 12-month follow-up, patients on RAASi alone demonstrated a decline of 9.1% mean eGFR while patients on RAASi/SGLT2i showed a slight increase by 2.4% which is statistically significant ($p=0.022$). However, only 175/583 have 12-month follow-up data available, with limitation of unmatched adjustment of confounding variables of glucose/BP control as well as degree of proteinuria. Furthermore, there was a lack of comparison to patients who are not on either RAASi or SGLT2i.

Conclusion:

These interim results highlight the opportunities to improve and optimize CKD management especially in advanced CKD patients underscoring the importance of early diagnosis and adoption of evidence-based treatments.



Submission ID: A-0218
Poster Viewing

Category: Doctor
Topic: Peritoneal Dialysis

CHALLENGES IN SUSTAINABLE KIDNEY CARE EFFORTS ON RECYCLING PD DIALYSATE BAGS

Azrini Abdul Aziz¹, Wan Hazlina Wan Mohamad¹, Sunita Bavanandan¹,
Norazian Shafien¹, Alecia Iming¹

¹Hospital Kuala Lumpur

Introduction:

An estimated 5% of global annual greenhouse emissions comes from our healthcare system. Peritoneal dialysis contributes a significant amount of plastic waste with an estimate of 80kg of recyclable polyvinyl chloride (PVC) disposed yearly per patient. There is general lack of knowledge on which plastics are recyclable resulting in inconsistent collection of materials. JomRecycle is a pilot project between Baxter, BCSD, Zuellig Pharma and Peritoneal Dialysis (PD) unit Hospital Kuala Lumpur (HKL) to collect dialysate PD bags for recycling into useful new product.

Methodology:

On 26 November 2021, plan to recycle PD dialysate bags was proposed to Kementerian Kesihatan Malaysia (KKM) hospitals. PD Unit HKL agreed to join the project. On 21st July 2022, briefing was given to PD Unit HKL and recording of promotional video with training of staff done. Patients were recruited from August 2022 until April 2024 and is still ongoing.

Result:

Up to April 2024, a total of 95 patients are still actively participating in JomRecycle with mean age 50.8 years. There are 45 male and 50 female patients. A drop out of 21 patients were due to conversion to hemodialysis (HD) (4), transplant (1), passed away (2), no space (6) and lost interest (8). 12 patients refuse to join. By April 2024, 820kg of PVC plastic has been collected which equals to 1640kg CO₂ emission saved.

Conclusion:

With proper guidelines, recycling can be incorporated in healthcare service with no compromise to delivery of basic healthcare. However, recruitment and ensuring continuous active participation may present a challenge. Good material separation often requires adequate storage space for collective bins while awaiting pick up with lack of space and loss of interest cited as main reason for drop out. Awareness on green nephrology and public education are pivotal to ensure successful implementation on sustainable kidney care efforts.



Submission ID: A-0219
Poster Viewing

Category: Doctor
Topic: Haemodialysis

IMPACT OF HEMODIALYSIS ON SLEEP DISORDERS IN PATIENTS WITH CHRONIC KIDNEY INJURY

Galuh Sari Agustina Zairida

Universitas Lambung Mangkurat (ULM)

Introduction:

Many patients with chronic kidney disease who are undergoing chronic hemodialysis suffer from sleep disturbance. Hemodialysis (HD) has prolonged the survival of patients Chronic Kidney Disease (CKD), and it has also adversely affected the sleep and emotional state of these patients. We evaluated the impact of HD on sleep duration, quality, and other sleep-related disorders.

Methods:

In this study, we investigate whether the new technical and therapeutic advances of the last decade have had a positive impact on sleep disturbances in HD patients. We were surveyed using a specific questionnaire; their clinical, lifestyle and dialysis data were also recorded. All patients were asked to complete questionnaires of the Pittsburgh Sleep Quality Index (PSQI).

Results:

The study showed significant methodological heterogeneity was present. The pooled prevalences of poor sleep quality for CKD. Insomnia was significantly more prevalent among patients aged 51-60 years and those aged >60 years than among those aged. There was a significantly higher risk of insomnia in patients dialysis. The most frequently recorded sleep disorders were night-time waking, trouble falling asleep and early morning waking, restless leg symptoms of patients with insomnia.

Conclusion:

We concluded that the sleep disorders are common in CKD patients either on conservative management or on regular hemodialysis.



Submission ID: A-0220
Poster Presentation

Category: Doctor
Topic: Transplant

UNRAVELING THE MULTIFACETED IMPACT OF RECURRENT URINARY TRACT INFECTIONS ON GRAFT OUTCOMES IN RENAL TRANSPLANT RECIPIENTS: A RETROSPECTIVE COHORT ANALYSIS

Nurnadiah KAMARUDIN¹, Nur Ashikin ADIMUN¹, Siti Hafizah MOHAMMAD ISMAIL¹, Devamalar SIMATHERAI¹, Boon Cheak BEE¹, Alif Adlan MOHD THABIT²

¹Department of Nephrology, Hospital Selayang, Lebuhraya Selayang-Kepong, 68100 Batu Caves, Selangor

²Department of Medicine, Hospital Selayang, Lebuhraya Selayang-Kepong, 68100 Batu Caves, Selangor

Introduction:

Urinary tract infections (UTIs) are the most common infection after renal transplantation (RTx), however the risk factors and impact remain controversial. This study aimed to investigate the incidence, risk factors, microbiology profile, and impact of recurrent UTIs (rUTIs) on graft and patient survival in renal transplant recipients.

Methodology:

A retrospective cohort study was conducted on adult renal transplant recipients at Selayang Hospital between 2022 and 2023 over a 2-year period. Recipients were evaluated for development of rUTIs, defined as >2 UTI episodes in 6 months. Risk factors were explored using multivariable analysis and bivariate analysis.

Results:

Of 91 RTx recipients included with a median age 34 years; IQR: 30-42, 7% experienced rUTIs. Increasing age >30 years old (OR: 1.35; IQR: 1.15-12.33), Male (OR:1.76; IQR: 0.34-9.28), Diabetes Mellitus (OR:1.40; IQR: 0.148-13.24), and UTI within 6-month post-RTx (OR:1.43; IQR: 1.07-1.93) have higher risk for rUTIs. The most common pathogens were Gram negative bacteria (13.2%) and Gram positive bacteria (4.4%). An increase risks of graft loss (OR:15.8; IQR: 0.85-291.62 associated with the rUTIs. However, there are no significant impact on overall graft survival and mortality was observed.

Conclusions:

While the 7% incidence was relatively low, rUTIs were associated with an alarming 15-fold increased risk of graft loss. Increasing age, Male, Diabetes Mellitus and early post-transplant UTIs emerged as key risk factors for developing rUTIs. Larger, multicenter studies are needed to further delineate the risk factors and explore preventive strategies to mitigate the detrimental effects of rUTIs on long-term graft outcomes.



Submission ID: A-0221
Poster Presentation

Category: Doctor
Topic: Haemodialysis

CRASHLANDERS IN A TERTIARY HOSPITAL: WHO ARE THEY AND WHAT ARE THE OUTCOMES?

Chu Hong Tang¹, Kar Wah Fuah¹, Christopher Thiam Seong Lim², Fairol Huda Ibrahim¹,
Bak Leong Goh¹

¹Department of Nephrology, Hospital Sultan Idris Shah Serdang, Malaysia

²Nephrology Unit, Faculty of Medicine and Health Sciences, Universiti Putra Malaysia, Malaysia

Introduction:

"Crashlanders" are patients with newly diagnosed end-stage kidney disease (ESKD) who initiate dialysis in unplanned manner using uncuffed internal jugular catheters (IJs). This population is known to experience significant morbidity and mortality rates. Literature review showed that mortality rate was 15- 28% and catheter-related bloodstream infections (CRBSI) rate was 6-19%. This study aims to elucidate the clinical characteristics and outcomes of patients undergoing dialysis using uncuffed IJs.

Methodology:

A retrospective cohort study of crashlanders who opted for hemodialysis (HD) as their long-term kidney replacement therapy that were admitted to HSIS Serdang from January 2022 to December 2022. Demographic data and clinical outcomes were collected through EHIS. 1-year clinical outcomes included the rate of CRBSI, arteriovenous fistula (AVF) creation, cuffed catheter insertion, and mortality. Data was analysed using SPSS Statistics 26.0.

Results:

There was a total of 87 patients with mean age of 53 ± 13.4 years, majority were male (57%) and Malay (70%). Common comorbidities included hypertension (91%), diabetes mellitus (76%), ischemic heart disease (26%), and stroke (13%). 27 patients (31%) died during follow up; mostly due to cardiovascular death (16%). 69% of the patients had their AVF created within a year; while the cuffed catheter insertion rate was 21%. CRBSI were observed in 24% of patients and 38% of patients needing >1 catheter insertion over the one year follow up.

Conclusion:

Crashlanders experience significant burden of morbidity and mortality. Our study revealed that a quarter of patients experienced CRBSI, and one-third died within the one-year duration which was higher compared to literature. Plausible explanations include higher prevalence of diabetes mellitus, crashlanding presentation; prolonged duration on catheter for HD and lower rate of AVF creation prior to HD. These findings emphasize the importance of planned dialysis initiation and early vascular access referral in the management of ESKD.



Submission ID: A-0222
Poster Viewing

Category: Doctor
Topic: Peritoneal Dialysis

PERITONEAL DIALYSIS- RELATED HYDROTHORAX AND THE CONVENIENT USE OF PLEURAL FLUID TO SERUM GLUCOSE RATIO, A SWEET CONUNDRUM.

Sivaraj Xavier¹, Nur Raziana Rozi¹, Wan Ahmad Hafiz Wan Md Adnan¹, Maisarah Jalalonmuhali¹,
Ng Kok Peng¹, Lim Soo Kun¹, Sia Leng Cheng², Ng Yi De³

¹Department of Renal Medicine, University Malaya

²Department of Respiratory Medicine, University Malaya

³Department of Radiology, University Malaya

Introduction

Hydrothorax is a well-known but uncommon, non-infectious complication of peritoneal dialysis. We report a case of recurrent left-sided hydrothorax in a patient with Lupus Nephritis on Continuous Ambulatory Peritoneal Dialysis (CAPD).

Case Illustration:

A 39-year-old lady with underlying SLE since 2003, was declared End Stage Renal Disease (ESRD) secondary to Lupus Nephritis. She underwent CAPD treatment since March 2020 with 4 exchanges daily. Her ultrafiltration (UF) volume was good, ranging from 1.1 to 1.7 litres daily and achieved Kt/V values of more than 1.7 persistently. Recently, she had recurrent hospital admissions for progressive dyspnoea. Chest radiograph showed massive, left-sided pleural effusion (hydrothorax) requiring multiple pleurocentesis. Pleural fluid analysis was transudative in nature and infective causes was ruled out. Consequently, her CAPD regime was changed to higher dextrose concentration (2.5%) during the day and Icodextrin for long dwell to increase the UF volume. Despite this, she had another admission with similar presentation requiring therapeutic drainage. Upon reinitiating PD, the fluid reaccumulated, raising suspicion of a pleuro-peritoneal leak. Our case posed a diagnostic dilemma as she presented with an unusual recurrent left-sided pleural effusion. Further workup revealed a low pleural fluid glucose to serum glucose (PF-S) gradient of 2.1 mmol/L which was not suggestive of a leak, causing a delay in diagnosis. However, the PFS ratio was 1.4 and a ratio of >1.0 was in favour of the diagnosis of pleuroperitoneal communication in PD patients and the sole cause for a higher pleural fluid glucose than serum. The diagnosis was confirmed by CT Peritoneography which demonstrated a left diaphragmatic dome defect. Her symptoms resolved with transition to hemodialysis.

Conclusion:

A high index of suspicion is warranted to rule out pleuroperitoneal leak in PD patients presenting with new onset unilateral hydrothorax and the PF-S ratio instead of gradient can be used as a diagnostic marker as illustrated here.



Submission ID: A-0223
Oral Presentation

Category: Doctor
Topic: Others : Onconephrology

RENAL IMPLICATIONS OF TYROSINE KINASE INHIBITORS IN CHRONIC MYELOID LEUKEMIA: A MALAYSIAN RETROSPECTIVE STUDY

Mohd Azwan¹, Bee PC¹, Lim SK¹, Marniza², Tan JL¹, Wong CM¹

¹Department of Medicine, Faculty of Medicine, University Malaya, Kuala Lumpur

²Oncology Unit, Faculty of Medicine, University Malaya, Kuala Lumpur

Background:

With the increasing incidence of cancer and advancements in oncology treatments like tyrosine kinase inhibitors (TKIs), understanding their impact on kidney function is crucial. Kidney complications in cancer patients, whether intrinsic or treatment-related, pose significant challenges, necessitating a comprehensive understanding of this interplay, leading to the field of onconephrology.

Objective:

This study examines the impact of TKIs used in chronic myeloid leukemia (CML) treatment on kidney function.

Methods:

A retrospective cohort study was conducted using electronic medical records to identify CML patients treated with TKIs for at least 12 weeks. Kidney dysfunctions include chronic kidney disease (CKD) with eGFR < 60 ml/min/1.73 m², acute kidney injury (AKI) defined as serum creatinine increase > 1.5 times from baseline, electrolyte imbalances, and proteinuria (UACR > 30 mg/mmol, UPCR > 50 mg/mmol, or urine protein > 1+).

Results:

Among 70 patients (mean age 56.7 years; 41% female), 24% had diabetes, and 20% had preexisting CKD. Imatinib was the most commonly prescribed TKI (78%), followed by Nilotinib (18%) and Dasatinib (2%). AKI occurred in 50% of patients (majority has stage 1 AKI, kidney function didn't return to baseline after 3 months), 24% had proteinuria, and 10% experienced electrolyte imbalances (hyponatremia, metabolic acidosis, hypokalemia). Pearson correlation analysis showed a strong association (0.870, $p < 0.001$) between TKI use and kidney function changes, supported by scatter plot analysis. Unable to assess long term effects on proteinuria due to no follow up UACR/UPCR. 7% stopped treatment due to failed TKI and refusal of further treatment. 14% changed from Imatinib to Nilotinib due to poor response and side effects.

Conclusions:

This study highlights the significant impact of TKIs on kidney function in CML patients. The findings emphasize the need for vigilant monitoring and management of kidney function in patients receiving TKI therapy, underscoring the importance of onconephrology.



Submission ID: A-0224
Poster Presentation

Category: Doctor
Topic: Peritoneal Dialysis

RISK FACTORS AND OUTCOMES OF CULTURE-NEGATIVE PERITONITIS IN PERITONEAL DIALYSIS PATIENTS: A SINGLE-CENTER RETROSPECTIVE STUDY

Nurnadiah KAMARUDIN¹, Shalini SELVARATNAM¹, Li Lian TAY¹, Lim Thiam Seong CHRISTOPHER², Fairol Huda IBRAHIM¹, Bak Leong GOH¹

¹Department of Nephrology, Hospital Sultan Idris Shah Serdang, Selangor

²Nephrology Unit, Department of Medicine, Faculty of Medicine and Health Sciences, University Putra Malaysia

Introduction:

Peritonitis is a major morbidity and mortality cause for peritoneal dialysis (PD) patients. Empirical antibiotics should immediately be initiated before PD effluent culture results are available. Culture-negative peritonitis (CNP) is a serious issue because its causes can be infectious or non-infectious. The International Society for Peritoneal Dialysis guidelines recommend the CNP rate not exceed 15%. This study aimed to identify risk factors associated with CNP to among PD patients.

Methodology:

A retrospective cohort analysis was conducted at a single tertiary facility. The study included 397 patients with at least one peritonitis episode from January 1, 2020 to December 31, 2024. Patients were divided into culture-negative and culture-positive groups (20.8% VS 79.2%). Bivariate and multivariate analysed factors associated with culture-negative status.

Results:

A total of 79 out of 379 patients were reported to have culture-negative peritonitis (CNP). Patients with CNP were majority younger age (<65 years old) (65.3%). Males had a higher rate of CNP at 61.3% [OR: 2.15, 95% CI: 1.14-4.05]. Comorbidities and laboratory parameters significantly associated with CNP included Diabetes Mellitus (43.2% [OR: 1.43, 95% CI: 0.92-2.22]), Hypertension (36.1% [OR: 1.39, 95% CI: 0.73-2.65]), cardiovascular disease (26.1% [OR: 1.67, 95% CI: 1.02-2.73]), hypoalbuminemia, hyperkalemia, and decreased eGFR ($p < 0.05$). The CNP rate was significantly higher in self-care continuous ambulatory PD patients (60%) [OR: 1.39, 95% CI: 0.93-2.08]. However, there was no significant association between CNP and mortality.

Conclusion:

This study found several factors that increased the risk of culture-negative peritonitis (CNP) in peritoneal dialysis patients. Younger age, being male, having diabetes, high blood pressure, heart disease, low albumin levels, high potassium levels, and low kidney function were all associated with higher rates of CNP. Moreover, more research with larger patient numbers and longer follow-up is still needed to confirm these findings and understand if CNP impacts long-term outcomes.

Submission ID: A-0225
Poster Viewing

Category: Doctor
Topic: Peritoneal Dialysis

A SURVIVAL ANALYSIS OF TENCKHOFF CATHETER INSERTION IN HOSPITAL TENGGU AMPUAN AFZAN

Choong Wen Jet, Mohd Ashraf Bin Ghazali, Chan Chee Eng, Mohd Kamil Bin Ahmad,
Fariz Safhan Bin Mohamad Nor

Department of Nephrology, Hospital Tengku Ampuan Afzan, Kuantan, Malaysia

Introduction:

Peritoneal dialysis is a dialysis modality that gains more interest in the recent years due to its flexibility, residual renal function preservation and better early survival. However, catheter loss continues to be one of the major challenges resulting in technique failure. This is a retrospective study on the catheter outcome inserted by nephrology team HTAA.

Methods:

Operation theatre notes between 1 Jan 2021 and 31 Dec 2023 were reviewed. We only included insertions that came from patient following up at CAPD unit for the ease of monitoring and data collection. Catheter removal due to tip migration, drainage failure presuming omentum wrap and peritonitis were recorded. Those with catheter remains functioning beyond the study interval or death were censored. Catheter survival probability was analyzed using Kaplan-Meier model.

Results:

A total of 181 insertions were identified. Twelve (12) removal and insertion at same setting and 24 insertions with missing data or procedure which get abandoned were excluded. Majority of the tenckhoff catheter insertions were assisted by peritoneoscope (130/145 = 89.6%). Eight (8) were inserted using seldinger technique and 7 were salvages for migrated catheter using seldinger method. Of the 145 insertions, 68 were removed at different point of time due to various reasons. Tip migration is the most common cause of catheter removal (60.5%) followed by peritonitis (25.6%) and omentum wrap (9.3%). Catheter inserted using peritoneoscope has highest mean estimated survival of 92 weeks (80-104, 95% CI) whereas migrated catheter salvaged using seldinger method has lowest estimated survival of 37 weeks (8-66, 95% CI). However, the difference in survival between different insertion techniques is not statistically significant.

Conclusion:

Tip migration and PD related peritonitis are major contributors for catheter removal.



Submission ID: A-0226
Oral Presentation

Category: Doctor
Topic: Glomerulonephritis

COMPARING THE PERFORMANCE OF THE INTERNATIONAL IGA NEPHROPATHY RISK PREDICTION TOOL WITH CLINICAL PREDICTORS IN PREDICTING RENAL END POINTS OF PATIENTS WITH IGA NEPHROPATHY

Shamira Shahar^{1,2}, Goh Bak Leong², Fairol Huda Ibrahim², Anim Md Shah^{1,3}, Nor Fadhlina Zakaria^{1,3}, Wan Zul Haikal Hafiz Wan Zukiman^{1,3}, Mohamad Zulkarnain Bidin³, Christopher Lim Thiam Seong^{1,3}

¹Department of Medicine, Hospital Sultan Abdul Aziz Shah, Universiti Putra Malaysia

² Department of Nephrology, Hospital Sultan Idris Shah, Serdang

³ Department of Medicine, Faculty of Medicine and Health Sciences, University Putra Malaysia

Introduction:

IgA nephropathy (IgAN) is a significant contributor to the global kidney health burden. The disease heterogeneous course poses a substantial challenge for clinical management. International IgA Nephropathy Risk Prediction Tool (IIgAN-RPT) was developed to predict the risk of progression. This study aims to evaluate the effectiveness of the IIgAN-RPT and compare its predictive utility with clinical predictors in our cohort.

Methodology:

This retrospective study included all patients with biopsy proven IgAN from January 2008 to May 2019 in Hospital Sultan Idris Shah, Serdang. Patients with kidney failure and lost follow-up were excluded. The primary outcome was 50% reduction in eGFR or kidney failure. The IIgAN-RPT was evaluated using receiver operating characteristic (ROC) curves. Observed and predicted outcome were calibrated using calibration plot. Significant clinical predictors in our cohort were determined using regression and evaluated using ROC and calibration plot.

Results:

Seventy patients were recorded over a median 5-year follow-up period. Majority were female (65.7%) with a mean age of 32 years, a median eGFR of 76 ml/min/1.73m² (IQR:41–109), and a median UPCI of 2.65g/day (IQR:1.7–5.7). The median 5-year IIgAN-RPT risk score was 23.1% (IQR:11.3–53.5), and 38.6% achieved primary outcome. The IIgAN-RPT showed reasonable discrimination with AUC of 0.893 (p<0.05;CI:0.819–0.968); but underestimated the risk of progression. The presence of tubular atrophy (HR:7.9;p<0.05;CI:2.350–27.11), high mean arterial pressure (MAP) (HR 1.072;p<0.05;CI:1.022–1.125), and low eGFR at diagnosis (HR:0.935;p<0.05;CI:0.908–0.963) were significantly associated with the observed primary outcome. These clinical predictors showed reasonable discrimination with AUC of 0.949 (p<0.05;CI:0.9–0.998).

Conclusion:

Our study has demonstrated comparable predictive utility between IIgAN-RPT and clinical predictors (eGFR at diagnosis, MAP, tubular atrophy). IIgAN-RPT may have underpredicted the observed outcome in our cohort. Moreover, using two clinical variables to predict disease outcomes is probably more effective than utilizing eleven clinical variables, especially for day-to-day practice.



Submission ID: A-0227
Poster Presentation

Category: Doctor
Topic: Peritoneal Dialysis

DIALING IN ON CAPD DROPOUT: UNDERSTANDING THE FACTORS

Wan Zainuddin WMK¹, Mohammad Ismail SH¹, Tan E¹, Bee BC¹

¹Department of Nephrology, Hospital Selayang, Malaysia

Introduction:

Continuous Ambulatory Peritoneal Dialysis (CAPD) offers a flexible and convenient treatment option for individuals with end-stage kidney disease (ESKD). However, despite its advantages, some patients discontinue this therapy prematurely, leading to what is known as CAPD dropout. Understanding the reasons behind this dropout is crucial for improving patient care and outcomes in renal therapy.

Methods:

This is a retrospective observational study conducted to identify factors associated with CAPD drop out in Selayang Hospital, Malaysia for year 2023

Result:

Up to year 2023, Hospital Selayang treated 483 PD patients, primarily through CAPD (386 patients) and automated peritoneal dialysis (APD), 97 patients. However, 117 patients experienced PD dropout documented as of December 2023. The average age of patients was 52 years, with a nearly equal gender distribution of 49.5% male and 50.5% female. The majority of PD patients were Malay (71.7%), followed by Chinese (20.2%) and Indian (8.1%). Hypertension (88.9%) and diabetes (71.7%) were prevalent comorbidities. Diabetic kidney disease was the leading cause of ESKD (69.7%). On average, CAPD patients remained in treatment for 42 months before dropout. Death accounted for 56.6% of PD dropouts, with recurrent peritonitis at 23.2%. Among peritonitis cases, 26.3% experienced one episode, 15.2% had two, and 10.1% had three or more. Majority patient drop out from PD after 1st episode of peritonitis because of non-tuberculous mycobacterium or fungal peritonitis. Only 1.7% had tenckhoff catheter malfunction leading to PD dropout. Cause of death whilst on CAPD was due to sepsis and cardiovascular event.

Conclusion:

Peritonitis plays a crucial role in PD dropout, highlighting the need for effective infection prevention and management. Strategies such as enhancing catheter care, implementing infection control measures, and providing patient education are essential for improving PD retention rates and overall patient outcomes.

Submission ID: A-0228
Poster Viewing

Category: Doctor
Topic: Others : Onco-Nephrology

THE MYSTERY OF SALTLESS BLOOD

Shamira Shahar^{1,2}, Goh Bak Leong², Fairul Huda Ibrahim², Anim Md Shah^{1,3}, Nor Fadhlina Zakaria^{1,3}, Wan Zul Haikal Hafiz Wan Zukiman^{1,3}, Haidi Mohamad⁴, Fauzah Abd Ghani⁵, Christopher Lim Thiam Seong^{1,3}

¹Department of Medicine, Hospital Sultan Abdul Aziz Shah, Universiti Putra Malaysia

² Department of Nephrology, Hospital Sultan Idris Shah, Serdang

³ Department of Medicine, Faculty of Medicine and Health Sciences, University Putra Malaysia

⁴ Department of Pathology, Hospital Sultan Idris Shah, Serdang

⁵ Department of Pathology, Faculty of Medicine and Health Sciences, University Putra Malaysia

Background:

Hyponatremia in multiple myeloma is usually related to pseudohyponatremia or therapy. Syndrome of inappropriate antidiuretic hormone secretion (SIADH) as a possible cause of hyponatremia in multiple myeloma (MM) is rarely reported.

Case Presentation:

We report a case of a 56-year-old lady who presented with a 2-month history of constitutional symptoms and acute kidney injury. A renal biopsy revealed malignant plasma cell infiltration, diffuse acute tubular injury, and features suggestive of non-crystalline form of light chain tubulopathy. Serum immunofixation confirmed the diagnosis of IgD Lambda Multiple Myeloma. Post-biopsy, she developed perirenal hematoma and bilateral lower limb weakness. Her serum sodium levels markedly reduced from 133 mmol/L to 117 mmol/L, which worsened with fluid administration. Her biochemistry later suggested SIADH. She was able to maintain her serum sodium levels on fluid restriction and intermittent hemodialysis. She was further referred for chemotherapy.

Discussion:

Determining the cause of hyponatremia in myeloma is challenging due to its broad differential. Proximal tubulopathy and acute tubular necrosis are plausible causes of hyponatremia in our case. However, other electrolytes were within normal parameters, and there was no presence of glycosuria to suggest proximal tubulopathy. Moreover, the close temporal association of hyponatremia with the kidney biopsy suggests that the procedure played a role in the development of acute hyponatremia. SIADH in myeloma is typically a treatment-related complication and is rarely caused by the tumor itself. One potential mechanism for developing SIADH in myeloma is the increased IL-6 production induced by the myeloma cells. IL-6 is a potent stimulator of arginine vasopressin (AVP) secretion. The kidney biopsy may have triggered the infiltrated malignant cells to produce more IL-6, hence leading to acute SIADH.

Conclusion:

Although rare, severe acute hyponatremia following kidney biopsy in highly tumour-infiltrated tissue suggests that SIADH can be directly induced by the tumor through IL-6 secretion.

Submission ID: A-0229
Poster Viewing

Category: Doctor
Topic: Infections

A CASE OF SPLENIC TUBERCULOSIS CAUSED BY ACQUIRED IMMUNODEFICIENCY IN A STEROID-RESPONSIVE NEPHROTIC SYNDROME PATIENT

Wen Jie LAU¹, Be Jinn LAI¹, Wei Hang LIM¹, Nur Dalila NOOR AZMAN SHAH¹, Khai Vern POON¹, Clare Hui Hong TAN², Kamilah MANAN³, Qairul Irwan HAML³, Nur Shazwaniza AWANG BASRY⁴, Han Hua LIM⁵

¹Department of Medicine, Bintulu Hospital, Sarawak, Malaysia

²Department of Nephrology, Sarawak General Hospital, Sarawak, Malaysia

³Department of Radiology, Bintulu Hospital, Sarawak, Malaysia

⁴Histopathology Unit, Department of Pathology, Sarawak General Hospital, Sarawak, Malaysia

⁵Department of Infectious Disease, Sarawak General Hospital, Sarawak, Malaysia

Introduction:

Tuberculosis is endemic in Malaysia, with Sarawak being one of the most affected states. Pulmonary TB is the commonest primary form of infection, while other frequently encountered extrapulmonary involvements include lymph nodes, pleura, bone, joints, urogenital tract and meninges. Splenic TB is extremely rare but typically associated with immunosuppression, bacterial endocarditis or severe sepsis. Melioidosis is the top differential for splenic lesions in Sarawak populations due to its high prevalence rate in the state.

Case Summary:

A 72-year-old man with underlying nephrotic syndrome secondary to focal segmental glomerulosclerosis since 2014, experienced a disease relapse in 2018 after discontinuing cyclosporin. Was restarted on cyclosporine and prednisolone, then gradually weaned off in October 2023. However, he had another relapse in December 2023, requiring pulsed intravenous methylprednisolone and discharged with oral prednisolone. 1 month later, he presented with 3-week history of productive cough and pleuritic chest pain, admitted for hospital-acquired pneumonia. USG thorax and abdomen revealed multi-septated right pleural effusion and large heterogenous hyperechoic splenic lesions (5.6x7.4cm). Diagnostic pleural tapping done showed minimal pus. Infectious serologies for syphilis, hepatitis B and C, and HIV were negative. He received total 6-week of intravenous antibiotics (initially started with piperacillin-tazobactam then ceftazidime, with fever only resolved with meropenem) then put on oral Bactrim (melioidosis treatment). Blood, sputum, urine, fungal and TB cultures revealed no growth. Abdomen computed tomography (CT) in April 2024 showed improving right lung consolidation and resolved right pleural effusion, with worsening splenic mass (6.3x8.7x8.2cm). He underwent CT-guided splenic biopsy which revealed acute on chronic inflammation with granuloma formation. Cytokeratin and Ziehl-Neelsen stains were negative. He was eventually treated for disseminated TB.

Conclusion:

We report a rare case of splenic TB in a steroid-responsive nephrotic syndrome patient who experienced frequent relapse, requiring pulsed steroids and immunosuppressants chronically leading to an acquired immunodeficiency state.