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Comparison of baseline characteristics and mean biochemical parameters between AKI and non-AKI groups in patients with rhabdomyolysis			
Variable	AKI group (n=25)	Non-AKI group (n=39)	P value
Sex, male: female (ratio)	1.8 : 1	2.4 : 1	0.259
Comorbidities (n)	8	11	0.706
Length of hospital stay (Days)	15.8	13.1	0.606
Mortality (n)	2	0	0.082
Peak BUN (mg/dl)	41.56 ± 30.24	22.97 ± 17.63	0.006
Peak Creatinine (mg/dl)	3.60 ± 2.59	1.35 ± 1.08	0.009
Mean peak CPK (IU/dl)	14740	8398	0.104
Serum Sodium (mEq/dl)	135 ± 8.90	135.41 ± 6.51	0.828
Serum Potassium (mEq/dl)	3.95 ± 1.05	3.94 ± 0.73	0.988
Serum Bicarbonate (mEq/dl)	19.92 ± 6.46	21.05 ± 4.09	0.394
Serum Calcium (mg/l)	8.66 ± 1.06	9.08 ± 0.72	0.062
Serum Phosphorus (mg/dl)	3.90 ± 1.37	3.94 ± 1.62	0.909
Serum Uric acid (mg/dl)	7.16 ± 3.51	5.68 ± 1.71	0.028
Serum Albumin (mg/dl)	3.12 ± 0.93	3.41 ± 0.72	0.155

AKI – Acute kidney injury, BUN – Blood urea nitrogen, CPK – Creatine phosphokinase

Conclusions: The most common aetiology of rhabdomyolysis was trauma and burns. Incidence of AKI (39.1%) was higher, compared to other studies. No significant difference in the age, comorbidities, length of hospital stay between AKI and non-AKI groups. Acute kidney injury more likely develops in the presence of high uric acid levels. Mortality was more in the AKI group. This is a single centre retrospective study and larger multicentre studies are required to further evaluate the predisposing factors.

SAT-050

OUT OF THE FRYING PAN INTO THE FIRE: 2 CASE REPORTS OF PROGRESSIVE RENAL FAILURE SECONDARY TO PEMETREXED



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Introduction: Pemetrexed is an anti-folate agent which inhibits enzymes involved in purine and thymidine nucleotide synthesis. It has found use in the treatment of several cancers, especially pleural mesotheliomas and non-small cell lung cancers (NSCLC). Its use is known to cause adverse effects related to myelosuppression (similar to other anti-folate agents). However, it is generally considered safe as a treatment of these aggressive cancers. Further, nephrotoxicity secondary to Pemetrexed is considered to be rare.

Methods:

Case report

We report two cases of progressive renal failure secondary to Pemetrexed therapy for NSCLC. These cases were encountered within a span of two years in the same renal unit. Case 1: A 65 year old female with metastatic NSCLC who was started on Pemetrexed in late 2015 (eGFR was 90ml/min/1.73m²). Treatment intent was palliative from the onset. She tolerated the drug well with minimal side effects. Her cancer showed partial response and was stable. Her renal function began to decline between early to mid 2017, which culminated in the Oncology team stopping the drug in December 2017, after noticing a steep drop in her eGFR over the preceding 6 months. She was first seen by the Nephrology team in January 2018 (eGFR was 20ml/min/1.73m²). Her urine dip was positive for blood and leucocytes. Her renal biopsy showed widespread acute tubular injury and focal acute tubular necrosis, in keeping with Pemetrexed nephrotoxicity. Her eGFR continued to decline over the following months and has now plateaued at 12ml/min/1.73m². She is currently being considered for renal replacement therapy. She's had no further treatment for her lung cancer since December 2017.

Results: Case 2: A 66 year old male diagnosed with metastatic NSCLC in July 2018 (eGFR was 80ml/min/1.73m²). He was started on Cisplatin and Pemetrexed upon diagnosis. Treatment intent was palliative. The oncology team first noted a rising creatinine in September 2018. After 4 cycles of Cisplatin + Pemetrexed, he was switched to maintenance Pemetrexed in October 2018. His cancer responded well to the treatment. However, his eGFR continued to decline between January and July 2019, which prompted the Oncology team to pause his Pemetrexed (eGFR was 40ml/min/1.73m²). On review in August, his eGFR had fallen to 29 ml/min/1.73m² despite having been off the Pemetrexed for 6 weeks. He was referred to the Nephrology team. His urine dip showed no active sediments. A renal biopsy was performed, which reported findings of acute tubular injury. His latest eGFR is 30ml/min/1.73m². We expect the course of his renal failure to be irreversible. He too has had no further treatment for his lung cancer.

Conclusions: Although the frequency of adverse renal events associated with Pemetrexed is reported to be low, the consequences of irreversible renal failure should always be borne in mind. Any decline in renal function should draw attention to the drug to prevent the potentially life-changing implications of renal replacement therapy. It is all the more relevant in this specific patient population, in whom the overriding aim should be to maintain a good quality of life.

SAT-051

RENAL LITHIASIS AT THE LAMORDE NATIONAL HOSPITAL (NIGER) : EPIDEMIOLOGICAL, CLINICAL AND THERAPEUTIC ASPECTS



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Introduction: Renal lithiasis refers to the disease characterized by the formation and / or presence of calculus in the kidneys, the calculation being an agglomeration of crystals bound by an organic matrix. The aim is to study the epidemiological, clinical and therapeutic aspects of kidney stones in 2019.

Methods: This was a descriptive study carried out from January 14, 2015 to May 13, 2019, in the Nephrology and Urology departments of Lamorde Niamey National Hospital (Niger). Patients of all ages, and all sex with kidney stones and who received surgical treatment in the Urology department during the study period, the sampling was exhaustive, and sociodemographic, clinical and therapeutic characteristics were also studied.

Results: A total of 110 cases of kidney stones were identified in 2092 hospitalized patients during the study period, a prevalence of 5.25%. The mean age of the patients was 36.51 years [range of 10 years and 80 years] and the sex ratio was 2.1. Of the 110 patients, 68.18% were from the urban area, 28.19% from the traders, 13.63% hypertensive, 4.54% diabetic and 4.54% had benefited from kidney stones. The most frequent reason for consultation was nephritic colic in 95.45% of cases. On examination, lumbar sensitivity was found in 59.09%. Renal failure was found in 49.09%. Pyelocalic dilatation was reported in 40% of patients. Escherichia coli was isolated in 10.91% of patients. At 65.85% computed tomography had a single lithiasis and 48.18% of patients had right renal lithiasis. Pyelic renal topography was found in 54.55% of patients. All patients had undergone surgery. The most reported post-operative complications are hematuria and parietal suppuration, each found in a proportion of 1.82%.

Conclusions: Renal lithiasis is a very common pathology that requires early diagnosis and adequate management to avoid serious pre- and postoperative complications.

SAT-052

COMBINED EXTRACORPOREAL HEMOCORRECTION EARLY APPLYING IN SEPSIS AND SEVERE ACUTE KIDNEY INJURY THERAPY



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Introduction: Different extracorporeal techniques have been studied in recent years in the hope of maximizing the effect of renal replacement therapy in modulating the exaggerated host inflammatory response, including the use of high volume hemofiltration, high cut-off membranes, adsorption alone, and coupled plasma filtration adsorption [Ghada Ankawi et al, Critical Care, v.22, 2018].

Methods: Male patient, 27 years old, with alveococcosis infected cysts of liver right lobe (pathogen – Staphylococcus aureus), septic shock and severe acute kidney injury (AKI) - serum creatinine (SCr) dynamics – 65 - 337 μmol/L, evolved at admission 1st day. Hyperthermia up to 39.8°C, rapidly worsening multiple organ failure with prominent haemodynamic instability requiring infusions of dobutamine, norepinephrine and still only achieving systolic arterial pressures of 60–70 mmHg, hypocoagulation were noted.

At the same day, we started online veno-venous haemodiafiltration (CVVHDF), because of oligo-anuric AKI. We inserted haemabsorption column HA-330 into the CVVHDF circuit after haemofilter. Patient received CVVHDF, pre-dilution, substitution flow – 60 ml/kg/h, blood pump speeds 150-200 ml/min, 1st procedure time – 2 hours and on the 2d day – 4 hours. After 2 procedures, there was a positive dynamics of SCR level, diuresis restoration occurred after the 1st CVVHDF combined with Haemabsorption. Renal function on the 3th day after the last CVVHDF with HA-330: SCr – 98 μmol/L, urine output – was about 2000 ml.

Results:

Parameters	Pre-HA-330+HDF	24 h HA-330+HDF	48 h HA-330+HDF
Blood pressure, mm Hg	72/35	92/45	112/42
Heart rate	117	110	82
WBC, × 10 ⁹ /L	9.7	10.10	6.9
Stabbed neutrophils, %	30	45	38
Segmented neutrophils, %	62	44	42
Procalcitonin (normal range 0.0-365 pg/ml)	6048.00	7546.00	4705.00
CRP, mg/L	230.1	192.14	112.73
Norepinephrine, mcg/kg/min	0.3	0.03	0.01
Dopamine, mcg/kg/min	6.6	6.6	4.5

Conclusions: The case report showed a positive effect with the early and timely appointment of combination renal replacement therapy and special column in septic shock. According to literary data, there is not enough to confirm of extracorporeal methods applying in sepsis treatment. So, we need to determine criteria for the initiation such kind of treatment and then include it in sepsis management guidelines.

SAT-053

PREDICTORS OF STAGE 3 ACUTE KIDNEY INJURY OUTCOME IN A TERTIARY GOVERNMENT HOSPITAL IN NORTH INDIA



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Introduction: BACKGROUND: Acute Kidney Injury (AKI) has continued to be associated with high morbidity and mortality worldwide. Identification and management of morbidity and mortality predictors may improve outcome.

AIM: This study was aimed at identifying the predictors of the outcome of AKI requiring dialysis.

Methods: This was a prospective study of all adult patients with AKI requiring dialysis at the Acute Kidney Unit of The Postgraduate Institute of Medical Education and Research, Chandigarh, North India between 1st January 2017 and 31st March 2017. Data for this study is

part of the data collation approved by the hospital ethical committee for AKI registry/cohort. Patients were recruited into the study once hemodialysis is commenced following diagnosis of AKI (KDIGO AKI stage 3). All patients who had background chronic kidney disease (CKD) or clinical signs suggestive of CKD (including renal ultrasound findings, unexplained anemia, obstructive uropathies) or are hepatitis B and/ or C virus, and/ or Human Immunodeficiency Virus seropositive, and patients who required intensive care unit admission were excluded. The etiology of AKI was based on the clinical diagnosis in patient's medical case notes and patients were followed up for three months. Study endpoints were: recovery of renal function defined as none- dialysis dependence at 3 months, dialysis dependence at 3 months and AKI- related death. Data was analyzed using SPSS version 23 and multi-variate logistic regression was used to determine endpoint predictive factors. P-value <0.05 was considered to be statistically significant.

Results: A total of 162 patients with AKI requiring dialysis were seen within the study period. There were 108(66.7%) males and 54(33.3%) females. Patients were aged 18-85 years with mean age of 49.4±15.66 years (males=50.1±15.49, females=48.1±16.05 years, p=0.617). Sepsis was the commonest cause of AKI and seen in 88 (54.32%) patients with urinary tract being the most common focus of infection (48/88=54.5%). There was no significant relationship between AKI etiology and outcome (p=0.576). At 3 months, 68(42%) died {20/68(29.4%) died while on admission}, 59(36.4%) remained dialysis dependent while 35(21.6%) became none- dialysis dependent. At 3 months, patients with elevated serum uric acid on admission (females >6.5 and males >7mg/dl) were 1.4 times less likely to be alive (p=0.038, OR=0.711, 95% CI=0.516- 0.981). On the other hand, patients who were alive but had oliguria on admission were 2.5 times more likely to be dialysis dependent at 3 months (p=0.001, OR=0.40, CI= 2.256-19.459).

Conclusions: AKI is still associated with high morbidity and mortality. Presence of elevated serum uric acid and oliguria were predictive for 3 month mortality and dialysis dependence respectively. Early identification and management of such predictors can improve stage 3 AKI outcome

SAT-054

POLYURIC ACUTE KIDNEY INJURY FROM NON-DILATED OBSTRUCTIVE UROPATHY COMPLICATING RECURRENT ABDOMINOPELVIC SARCOMA



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Introduction: The classic features of obstructive uropathy and acute kidney injury (AKI) are oligo-anuria and radiologic evidence of dilatation with hydroureter(s) and hydronephrosis. Non-dilated obstructive uropathy (NDOU) represents an estimated 5% of patients with obstructive uropathy. We recently encountered the even most unusual case of AKI from an obstructing recurrent abdominopelvic sarcoma despite overt polyuria and the absence of overt nephro-ureteral dilatation.

Methods: Case report.

Results: A 35-yo man with a history of recurrent abdominopelvic perivascular epithelioid sarcoma despite multiple abdominal procedures including a right hemicolectomy with mass resection in 2016 and subsequent chemotherapy with Pazopanib, presented with one week of worsening abdominal pain and reduced urine output. He had a contrast-enhanced CT scan the day before which revealed increasing multifocal mass lesions, the largest measuring 11 cm between the rectum and the urinary bladder. The urinary bladder was displaced anteriorly. He was hemodynamically stable and afebrile. Admission serum creatinine was elevated at 1.11 mg/dL compared to 0.73 mg/dL three weeks prior. Despite adequate urine output with Foley catheter drainage of up to 4 liters a day, and given the finding of only mild bilateral hydronephrosis, the initial clinical decision was that urinary tract decompression was not indicated. He was therefore managed conservatively with PCA and antiemetics. Nevertheless, acute kidney injury worsened and serum creatinine by day 6 had increased to 2.12 mg/dL (Figure 1).