The evolution has been marked by a progressive improvement in renal function in 37% of cases but 74% of patients maintained chronic kidney failure then requiring hemodialysis in 58% of cases after a mean of follow-up of 14 months (3 to 32 months).

Three patients had kidney transplant. One death occurred and was secondary to acute pulmonary edema.

**Conclusions:** The diagnosis of aHUS is complex and challenging, but is essential because of the devastating consequences of inadequate treatment. The prognosis of HUS has been improved by plasma exchange but chronic renal insufficiency is still common.

In cases of end-stage renal failure, kidney transplantation remains a solution but genetic mutations are an important risk factors for the recurrence of aHUS during the post-transplantation period.

No conflict of interest

**POS-191**

**EXTERNAL VALIDATION AND COMPARISON OF RISK PREDICTION SCORING TOOLS FOR ACUTE KIDNEY INJURY IN PATIENTS WITH MYOCARDIAL INFARCTION IN A TERTIARY HOSPITAL IN DAVAO CITY**

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**Introduction:** Patients with acute myocardial infarction are at high risk of developing acute kidney injury (AKI). In settings where AKI biomarkers are not readily available, the use of a scoring system upon patient’s admission may benefit those with high probability of developing AKI as this may allow prompt institution of renal protective measures such as avoidance of overzealous diuresis, wide variations in blood pressure, use of high volume contrast media, acute anemia from blood loss, and use of relatively nephrotoxic agents that may require renal dose adjustments and, perhaps, an early nephrology referral.

**Methods:** From January 2015 to December 2019, a total of 384 charts were gathered based on inclusion criteria. After thorough chart review, 317 charts were excluded and 69 patient charts were included for the study. The continuous baseline characteristics of AKI and non-AKI patients in this study were analyzed using Shapiro-Wilk Test for normality. Comparisons of these baseline characteristics was done using Independent Sample T-test and presented as mean and standard deviation otherwise.

**Results:** The study population consisted of 69 patients, 23 (33.3%) of whom developed acute kidney injury based on the KDIGO criteria. These patients were further categorized as having stage 1 (78.3%), stage 2 (17.4%), or stage 3 (4.3%) AKI.

<table>
<thead>
<tr>
<th>Baseline Characteristics</th>
<th>No AKI (n = 47)</th>
<th>Stage 1 (n = 23)</th>
<th>Stage 2 (n = 10)</th>
<th>Stage 3 (n = 3)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>62 ± 13.3 (27.7)</td>
<td>61 ± 14.7 (30.5)</td>
<td>61 ± 14.7 (30.5)</td>
<td>62 ± 13.3 (27.7)</td>
<td>0.190</td>
</tr>
<tr>
<td>Male, n (%)</td>
<td>27 (56.7)</td>
<td>16 (69.6)</td>
<td>6 (60.0)</td>
<td>5 (100.0)</td>
<td>0.638</td>
</tr>
<tr>
<td>NST, n (%)</td>
<td>36 (76.6)</td>
<td>18 (78.3)</td>
<td>4 (40.0)</td>
<td>4 (100.0)</td>
<td>0.134</td>
</tr>
<tr>
<td>Diabetes Mellitus, n (%)</td>
<td>26 (56.9)</td>
<td>11 (47.8)</td>
<td>3 (30.0)</td>
<td>2 (66.6)</td>
<td>0.374</td>
</tr>
<tr>
<td>Hypertension, n (%)</td>
<td>36 (76.6)</td>
<td>18 (78.3)</td>
<td>4 (40.0)</td>
<td>4 (100.0)</td>
<td>0.134</td>
</tr>
<tr>
<td>CKD, n (%)</td>
<td>10 (21.7)</td>
<td>4 (17.4)</td>
<td>2 (20.0)</td>
<td>2 (66.6)</td>
<td>0.630</td>
</tr>
<tr>
<td>Heart Failure, n (%)</td>
<td>3 (6.6)</td>
<td>3 (13.0)</td>
<td>1 (10.0)</td>
<td>0 (0.0)</td>
<td>0.386</td>
</tr>
<tr>
<td>Centers ABD, n (%)</td>
<td>3 (6.6)</td>
<td>3 (13.0)</td>
<td>1 (10.0)</td>
<td>0 (0.0)</td>
<td>0.386</td>
</tr>
<tr>
<td>Shock, n (%)</td>
<td>10 (21.7)</td>
<td>4 (17.4)</td>
<td>2 (20.0)</td>
<td>2 (66.6)</td>
<td>0.630</td>
</tr>
</tbody>
</table>

**Conclusions:** This study concluded that there is a high incidence of AKI in patients with acute myocardial infarction. Of the available recently validated risk assessment tools that can stratify patients in terms of developing AKI, between Xu et al and Abusaada et al, this study favors the use of the Abusaada scoring system because it did not require any adjustment to arrive at the highest accuracy level. This scoring can be employed immediately upon admission to aid in the preemptive management of AKI in patients with myocardial infarction. This was found to have a good predictive index for AKI occurrence in the setting of AMI.

No conflict of interest

**POS-192**

**TRANSPLANT RENAL ARTERY STENOSIS: EPIDEMIOLOGIC PROFILE AND THERAPEUTIC PARTICULARITIES**

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**Introduction:** Transplant renal artery stenosis (TRAS) is a serious complication that might occur at any time during the postoperative period. It is a serious predictor of graft loss. The purpose of our study was to identify the epidemiologic profile of TRAS, and to analyze the therapeutic particularities as well as the patients’ evolving profile.

**Methods:** All cases of TRAS noted in the follow up of our patients from 1970 to 2019 were reviewed retrospectively in our transplantation department.

**Results:** A total of 10 patients (7 men, 3 women) were diagnosed with TRAS, with a median age of 37 (32-69 years). The original nephropathy was glomerular in four cases, renovascular and chronic interstitial in respectively four and two case. Seven patients received renal grafts from living donors, while the three others received allografts from brain-deceased patients. In all patients, end-to-side anastomosis was performed. The median time to presentation was 240 days. Seven patients presented during the early post-transplantation process (<15 days). Clinical presentation was delayed graft function in three cases, secondary graft function deterioration in two cases and acute hypertension in five cases. The nadir post-transplant serum creatinine level was 240 mmol/L (103-300 mmol/L), while the serum creatinine value at admission was 415 mmol/L (132-1061 mmol/L). The stenosis was anastomotic in eight case and pre-anastomotic in the two other cases. The stenosis was diagnosed by Doppler ultrasound in all patients, and was significant (superior to 70%) in four cases: three treated by renal artery angioplasty, the last one managed with surgical revascularization for technical difficulty. An optimal medical management was indicated in the other six cases.

**Table 1:** Baseline Characteristics of Patients with Acute Myocardial Infarction and with and without Acute Kidney Injury

<table>
<thead>
<tr>
<th>p-value</th>
<th>&lt;0.05</th>
<th>statistically significant</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.007</td>
<td>8.5 ± 2.0 (3.6)</td>
<td>8.5 ± 2.0 (3.6)</td>
</tr>
</tbody>
</table>

**Figure 2:** Area Under the ROC Curves for Abusaada (A) and Xu (B) risk prediction scoring tools.
Serum creatinine levels decreased in nine cases while no amelioration was noted in the last surgical managed one. We have observed three renal artery in-stent restenosis after 10 months of evolution. The median last serum creatinine level was 215 mmol/L (97-600 mmol/L).

Conclusions: TRAS may be a curable cause of refractory hypertension and allograft dysfunction. An early diagnosis and appropriate treatment can prevent graft loss.

No conflict of interest

POS-193
SPONTANEOUS TUMOR LYSIS SYNDROME PLUS MALIGNANT HYPERCALCEMIA IN A PATIENT WITH NON-HODGKIN’S LYMPHOMA REQUIRING HEMODIALYSIS SUPPORT

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Introduction: A 61-year-old male who started his current condition four months prior admission with an inguinal mass, thoracoabdominal CT scan showed a 16 x 7.5 x 11cm mass. At the moment, the patient’s serum creatinine was 1.4mg/dL.

Methods: Case Description: Histopathological report of diffuse large B-cell non-Hodgkin lymphoma CD 20+. The patient’s family reports apparent fluctuation of the state of consciousness with decrease in food intake. Two days prior to admission, his neurological status worsened and he developed stupor and psychomotor agitation. Labs Upon admission on 03/04/2020: Cr: 3.5, Uric acid: 27.3, Urea: 299.6 K: 4.2, Ca: 15.4, P: 7.2 Albumin: 3.4 Leukocytes: 20270 Neutrophils: 94% Procalcitonin: 3.47He was admitted with the following diagnoses: Diffuse large B-cell non-Hodgkin lymphoma, CD20 + AKIN III Acute Kidney Injury + Tumor Lysis Syndrome, Cairo-Bishop Grade 3 + Hyperuricemia + Hyperphosphatemia + Malignant Hypercalcemia.

Access vascular placement and urgent hemodialysis were decided 03/05/2020. Hemodialysis session 03/06/2020. He began R-CHOP chemotherapy Glomerular filtration rate was calculated with CKD-EPI formula; 37 ml / min / 1.73m2 on 03/13/2020. Administration of Zolendronate (4 mg) on 03/22/2020. In R-CHOP nadir, complicated with Septic Shock: Meropenem / Vancomycin required.

Conclusions: Upon discharge on 03/30/2020 are as follows: Cr: 0.9 Uric Acid: 4.0 Urea: 44.9 K: 3.7, Ca 8.7, P 2.6 Leukocytes 18960, Neutrophils: 81%

Results:

POS-195
ACUTE KIDNEY INJURY IN COVID-19 INFECTED INPATIENTS: A SINGLE CENTRE EXPERIENCE IN SOUTH EASTERN ENGLAND

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Introduction: The outcomes of adults who develop an acute kidney injury (AKI) in the context of COVID-19 infection is unclear. We explored the epidemiology of AKI as well as exploring the risks associated with advancing age and intensive care admission.

Methods: Data was retrospectively collected on 481 COVID-19 positive (on swab) adult inpatients between 26th April 2020 and 4th June 2020. The data gathered from electronic patient records at our secondary care hospital included serial s. creatinine, demographics, comorbidities and AKI status. Excel was used to calculate means and standard deviations of various results. Patients on dialysis were excluded.

Results: There were 481 patients in total, the mean age was 72 (+- 16.9) years. The serum creatinine (median and range) in patients at admission, peak and discharge or death was 123 (range 30-1339), 136 (30-1339), 105 (7-761) umol/L.

200/481 patients (41.6%) had an AKI during their stay whilst 281 patients (58.4%) had no AKI. 3 patients had functioning renal grafts.

Of patients with AKI, 126/481 (26.2%) had AKI 1, 41/481 (8.5%) had AKI 2 and 33/481 (6.9%) had AKI 3. The overall mortality rate for those patients who developed an AKI was 106/200 (53%) compared to 58/281 (20.6%) for those with no AKI. The mortality rate for AKI 1 was 56/126 (44.4%), for AKI 2 was 24/41 (58.4%) and for AKI 3 was 23/31 (78.8%). The mean age of those who died with an AKI-1, AKI-2 and AKI-3 was 80 (+-10.3) years, 81.7 (+-13.0) years and 75.2 (+-11.5) years respectively.

No conflict of interest

POS-194
RISK FACTORS AND CLINICAL CHARACTERISTICS OF ACUTE KIDNEY INJURY IN HOSPITALIZED COVID-19 PATIENTS: A RETROSPECTIVE COHORT STUDY

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Introduction: Acute kidney injury (AKI) is a serious medical problem and has long been associated with in-hospital mortality. The incidence of AKI in COVID-19 patients ranges from 8.4 to 20% depending on patient population. Although the risk factors for AKI are generally described, whether these factors are consistent with COVID-19 patients remain under-investigated. Here, we reviewed the risk factors, and clinical characteristics (blood chemistries and urine studies) of hospitalized COVID-19 patients with AKI.

Methods: This is a single network, retrospective cohort study of adult patients with confirmed SARS-CoV-2 infection who were hospitalized from March 1st to May 31st, 2020 at UPMC Pinnacle Hospitals in Pennsylvania, USA. The incidence of AKI (defined by KDIGO criteria), the nature of AKI and serum/urine characteristics were reported. Risk factors of AKI were assessed by logistic regression multivariate analysis.

Results: Of 283 patients, AKI occurred in 40.6%. In multivariate analysis, the significant risk factors of AKI in COVID-19 can be divided into: 1) demographics/co-morbidities (male sex, increasing age, diabetes, chronic kidney disease); 2) other organ involvements (transaminities, elevated troponin I, ST-T change on electrocardiography); 3) elevated inflammatory markers (ferritin, lactate dehydrogenase); 4) possible bacterial infection (leukocytosis, elevated procalcitonin); 5) the need for advanced oxygen delivery (non-invasive positive pressure ventilation, mechanical ventilation); and 6) other critical features (ICU admission, need for vaso-spressors, acute respiratory distress syndrome). Most cases with AKI were due to pre-renal (63.8%) followed by intrinsic (31.5%) causes. Community-acquired AKI were likely pre-renal in origin while most hospital-acquired AKI were intrinsic. Renal replacement therapy was mostly in intrinsic AKI (81.6, 95% CI 64.0-94.0) and intrinsic AKI (OR 21.7; 95% CI 6.4-73.6) were associated with mortality. Male sex, stage 3 AKI, higher baseline serum creatinine, peak serum creatinine and blood urea nitrogen were suggestive of intrinsic causes. Urine analysis and fractional excretion of sodium (FE-Na) and urea (FE-Urea) were not helpful in distinguishing between intrinsic vs. other causes of AKI.

Conclusions: AKI is very common in COVID-19, up to 40% in our cohort. Characterization of AKI by its nature (community-acquired vs. hospital-acquired) or by its etiology (pre-renal vs. intrinsic) may help guide the clinical outcomes.

No conflict of interest