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diabetes mellitus and chronic kidney disease were significantly associated with the development of acute kidney injury. No significant association was found between anti-fungal therapy and acute kidney injury.

Conclusions: The second wave of COVID-19 pandemic led to massive increase in cases of mucormycosis in India, presenting as an epidemic within the pandemic of COVID-19. Approximately thirty percent of these patients had acute kidney injury. Underlying type- 2 diabetes mellitus was associated with a high incidence of acute kidney injury in this cohort.

No conflict of interest

POS-010

NEONATAL COVID-19 WITH ACUTE KIDNEY INJURY: EXPERIENCE WITH PERITONEAL DIALYSIS



Kumthekar, G^{*1}, Shah, S²

¹Symbiosis medical college for women and Symbiosis university hospital and research center- Lavale, Nephrology, Pune, India, ²Surya mother and child care- Super specialty hospital- Wakad, Neonatology, Pune, India

Introduction: Children are less severely affected by acute respiratory syndrome coronavirus 2 (SARS-CoV-2) than adults. The data available suggest that severe disease might be more common in infants and neonates than in older children. In a prospective UK population-based cohort study most babies were mildly affected, with cases of severe disease being very rare. The SARS-CoV-2 virus was reported as one of the rare causes of fetal inflammatory response syndrome (FIRS) and is associated with multisystem inflammatory syndrome in children (MIS-C). This case report is an attempt to highlight COVID-19 in a neonate showing multisystem involvement with acute kidney injury (AKI) requiring dialysis.

Methods: A 7 days old male neonate (weight 2 kg) was referred to Surya Mother and Child Care (SMCC) with fever, breathing difficulty, oliguria and anasarca. On evaluation invasive ventilatory support was started. Laboratory tests revealed a creatinine of 3.61 mg/dL, urea 123 mg/dL, pH of 7.10 with proteinuria of 4+ and hematuria. Patient had fluid overload, hypoxia and circulatory shock requiring vasopressor support. As the patient was anuric, a decision was taken to start peritoneal dialysis (PD). PD was preferred due to its feasibility, cost effectiveness and longer expected time to recovery. Tenckhoff PD catheter was placed and manual exchanges started at 15 ml/kg fill volume of 1.7% dialysis bag. We added 3 ml of 25% dextrose solution to the dwell in order to achieve ultrafiltration. The cycle length was 90 minutes to begin with. After 24 hours, creatinine came down to 3.28 mg/dL and urea to 102 mg/dL. Ultrafiltration over 24 hours was 296 ml which resulted in stopping vasopressor support. On day 3 of peritoneal dialysis, cycle length was increased to 150 minutes with dwell time of 120 minutes in an attempt to achieve higher solute removal. Patient had native kidney urine output (187 ml over 24 hours) with negative balance of 330 ml over 3 days. We stopped adding 25% dextrose to PD bags as adequate ultrafiltration was achieved that translated into better ventilator parameters (FIO₂ 25%). Acidosis and electrolyte imbalance were well under control.

Results: Patient had nephrotic range proteinuria (urine protein excretion 4.3 gm per day; urine protein 4+) and was started on glucocorticoid (prednisolone 2 mg/kg/day). Meanwhile, peritoneal dialysis was continued with cycle length of 4 hours and 30 minutes, dwell time 240 minutes. Patient was extubated on day 5 and with a creatinine of 1.76 mg/dL, peritoneal dialysis was also stopped. Patients autoimmune work up (ANA, C3, C4) was negative and SARS Cov2 antibody test was positive. Nasopharyngeal swab to detect COVID-19 with RT PCR was negative. Proteinuria reduced to 2+, creatinine to 1.19 and that PD catheter was removed on day 7. On follow up, prednisolone was continued for 4 weeks and stopped. Patient attained nephrotic state remission with no relapse till now.

Conclusions: Newborn babies can be affected by SARS-CoV-2 in a number of different ways. If a high index of suspicion is lacking, missing a diagnosis of MIS-C in SARS-CoV-2 infection is very much likely. Timely initiation of dialysis affects the outcomes in a favorable manner. SARS-CoV-2 infection presented with acute nephritis with nephrotic range proteinuria may be a unique example in the literature which responded well to short course glucocorticoid.

No conflict of interest

POS-011

CORRELATION OF CLINICAL AND BIOCHEMICAL CHARACTERISTICS OF ACUTE KIDNEY INJURY IN PATIENTS WITH COVID-19: A SINGLE CENTER EXPERIENCE



Kumthekar, G^{*1}, Nagarkar, M², Shukla, S³

¹Symbiosis medical college for women and Symbiosis university hospital and research center- Lavale, Nephrology, Pune, India; ²Symbiosis medical college for women and Symbiosis university hospital and research center- Lavale, Internal medicine, Pune, India, ³Symbiosis international university, Symbiosis statistical institute, Pune, India

Introduction: Acute kidney injury (AKI) develops in 20 to 70 % of patients with COVID-19 and is associated with high mortality. The exact mechanism of COVID-19 associated kidney injury is unclear. This retrospective study was aimed at exploring incidence, severity and outcome of AKI in patients admitted with COVID-19. Our study was retrospective observational study so it has its own limitations. Hospitalization criteria were different at that time. Still, we noticed that a significant proportion of patients developed AKI during the course of their disease.

Methods: It was a retrospective cross sectional study carried out in Symbiosis University Hospital and Research Centre, Pune. We collected clinical and laboratory data of 456 in patients with COVID-19. Patients presenting with AKI or on dialysis at arrival to hospital were excluded. It predominantly consists of patients who developed AKI during their stay in hospital. For statistical analysis, variables with skewed distributions were log-transformed to satisfy assumptions of normality. Differences in clinical and biochemical characteristics between groups of patients with AKI and without AKI were tested by ANOVA adjusting for age and sex or by Chi-square test as applicable.

Results: Among patients who developed AKI during hospital stay, 28 (62.2%) were male and 17 (37.8%) were female. As per KDIGO criteria 34 (74.6%) had stage 1 AKI, 5 (11%) had stage 2 AKI and 6 (13.3%) had stage 3 AKI. Patients who developed AKI were older compared to those who did not developed AKI during hospital stay (59.3 vs 47.2 y, p<0.0001). We observed higher levels of CRP in males (mean 35.4, SD=160.5) compared to females (mean 17.0, SD= 25.8) with p=0.116. Likewise, ferritin was higher in males (mean 520.8, SD=1396.5) compared to females (mean 114.34, SD=152.84) with p=0.0001 being significant. Albumin being a negative inflammatory marker was low in females (mean 0.10, SD=0.53) compared to males (mean 0.23, SD=0.83) being less significant with p=0.70. We could not quantify proteinuria and this could be a limitation in understanding the cause of low albumin in patients with COVID-19 associated AKI (COVAKI). Days on the ventilator were 3.3 days for patients with AKI and 0.11 days for non AKI patients. There were 12 deaths of COVID patients out of these 9 who had AKI which was statistically significant (p< 0.0001). About 106 patients had hypoxia and 32 patients (71.1%) developed AKI which was statistically significant. (p< 0.0001). Average ICU stay was 6 days (SD=6.3) for patients with AKI and 0.57 days (SD=2.123) for patients without AKI (p=0.0001). Days on the ventilator were 3.3 days (SD= 5.3) for patients with AKI and 0.11 days (SD= 0.80) for non AKI patients (p=0.0001). There were 12 deaths (2.6%) among all COVID patients we studied. Out of these 9 (20.5%) had COVAKI. 3 patients died (0.7%) who did not developed AKI in their course in hospital. This highlighted statistically significant (p< 0.0001) association of COVAKI with mortality.

Conclusions: COVAKI was associated with higher mortality, prolonged hospital stay, days on ventilator and higher oxygen requirement. Low Serum albumin was observed without a corresponding proteinuria or liver dysfunction. The development of COVAKI during the hospital stay was associated with use of glucocorticoids, HCQS, and heparin.

No conflict of interest

POS-012

IMPACT OF COVID 19 IN RENAL TRANSPLANT RECIPIENTS



P S, M^{*1}, Fernando, E², n, S²

¹Govt Stanley Medical College, Nephrology Department, Kozhikode, India, ²Govt Stanley Medical College, Nephrology, Chennai, India

Introduction: Coronavirus Disease (COVID 19) is now considered a pandemic by the WHO. Not much studies have described the pattern