

Rosuvastatin-received group and placebo-received group respectively and there was a significant difference between groups (p-value:0.04).

**Conclusions:** Based upon our data and similar previous studies, it's believed that Rosuvastatin could be considered as a protective agent against CI-AKI and can reduce renal injuries and decreased eGFR related to contrast injection.

## POSTER SESSION: ACUTE KIDNEY INJURY CLINICAL, DRUGS, AKI-CKD CONTINUUM - 2

POS02

28/03/2020

Hall 3 and 4 – Exhibition/Poster Area

12:00–13:15

### SAT-027

#### CISPLATIN NEPHROTOXICITY IN A PATIENT WITH CERVICAL CANCER WITH ACQUIRED TYPE 2 RENAL TUBULAR ACIDOSIS: REVIEW OF LITERATURE AND CASE REPORT



ALHAQAS, G\*<sup>1</sup>, Ahmed, F<sup>2</sup>, Taha, S<sup>2</sup>, Akl, A<sup>3</sup>, Abdullah, S<sup>4</sup>

<sup>1</sup>dr.soliman fakeeh hospital Jeddah jeddah Saudi Arabia, <sup>2</sup>DSFH internal medicine jeddah Saudi Arabia, <sup>3</sup>DSFH nephrology jeddah Saudi Arabia, <sup>4</sup>DSFH oncology jeddah Saudi Arabia

**Introduction:** Cisplatin is platinum-based chemotherapy; it is considered one of the most potent drugs used in the treatment of a wide range of malignancies. Nephrotoxicity is a serious and dose-limiting side effect of cisplatin. Multiple mechanisms were found to contribute to renal dysfunction following exposure to cisplatin. These include tubular epithelial cell toxicity, vasoconstriction in the renal microvasculature, and proinflammatory effects. Its effects on the kidney usually manifested as acute kidney injury (20–30%), Electrolytes disturbances, Hypomagnesemia (40–100%), as well as case reports of Fanconi-like syndrome and renal tubular acidosis.

Fanconi syndrome is characterized by a defect in proximal tubular reabsorption of glucose, amino acids, uric acid, phosphate, and bicarbonate. It can occur due to inherited or acquired causes. It is well known that most of the acquired cases of Fanconi syndrome with or without proximal renal tubular acidosis are drug-induced, many being due to antineoplastic agents including Cisplatin. The incidence of diagnosing Fanconi syndrome and renal tubular acidosis is thought to be underestimated as the commonly used tests to monitor patients on Cisplatin, such as estimated glomerular filtration rate and urine albumin/creatinine ratio are not sensitive markers of Proximal tubules.

**Methods:** case report: 43-year-old female suffering from advanced cervical cancer encroaching on the ureters bilaterally with bilateral obstructive uropathy and insertion of bilateral nephrostomy tubes. After her first session of chemotherapy with cisplatin and radiotherapy, the patient was admitted to the Intensive care unit due to septic shock and hypovolemia secondary to severe diarrhea. Upon her assessment, she was awake, conscious, oriented her Blood Pressure upon her presentation was 84/50, heart rate of 110, temperature 38, clinical symptoms of dehydration, septic shock was declared secondary to *Escherichia coli* Extended-spectrum beta-lactamases urosepsis. She was treated with volume resuscitation then required the use of norepinephrine. Initial investigations revealed serum Creatinine of 8.2 mg/dl, blood urea nitrogen 89, Hemoglobin 7 g/dl, Platelets 44K/ul.

**Results:** Ultrasound abdomen showed moderate right hydronephrosis with grade one nephropathy and mild left hydronephrosis with grade four nephropathy. She was diagnosed as acute kidney injury secondary to both a pre-renal cause being hypovolemic and septic shock and a post-renal being obstruction of the left nephrostomy tube. Her blood PH was 7.28, Serum bicarbonate 12, while her urine PH was 9 with albuminuria, Urine Albumin to Creatinine Ratio of > 150 and no glucosuria, in view of these findings type two renal tubular acidosis was declared in addition to acquired Fanconi syndrome secondary to cisplatin. She was started on intravenous Sodium Bicarbonate infusion then switched to a high oral dose of three gm per day, and her left nephrostomy tube was adjusted by urology service. Following these interventions, The patient's condition improved with a dramatic reduction in her serum creatinine level to a normal value within ten days.

**Conclusions:** Fanconi syndrome is a rare congenital tubular disorder; however, the acquired form is not uncommon and is under-diagnosed in various medical situations. Identification and early management of acquired Fanconi syndrome improve dramatically renal survival.

### SAT-028

#### ACUTE KIDNEY INJURY ASSOCIATED WITH MIDDLE EAST RESPIRATORY SYNDROME CORONAVIRUS (MERS-CoV) INFECTION



ALKINDI, F\*<sup>1</sup>, Boobes, Y<sup>2</sup>, Chandrasekhar Nair, S<sup>3</sup>, Hashmey, R<sup>4</sup>

<sup>1</sup>Tawam Hospital Internal Medicine Al Ain United Arab Emirates, <sup>2</sup>Tawam Hospital Nephrology Al Ain United Arab Emirates, <sup>3</sup>Tawam Hospital Academic Affairs Al Ain United Arab Emirates, <sup>4</sup>Tawam Hospital Infectious Disease Al Ain United Arab Emirates

**Introduction:** Middle East Respiratory Syndrome Coronavirus (MERS-CoV) infection is zoonotic infection that was first identified in 2012 with high mortality rate. It is linked to camel exposure or human-to-human transmission. Clinical presentation of MERS CoV infection ranges from mild disease to septic shock with multi organ failure and death. Acute kidney injury (AKI) has been described in cohorts of MERS CoV infected patients with variable degree of severity. We studied the clinical characteristics and outcomes of AKI in MERS CoV infected patients.

**Methods:** Ethical approval was obtained to conduct a retrospective multicenter chart review study for MERS CoV confirmed cases in Al Ain City over 7 years period (May 2012 – May 2019). We included patients who developed AKI and studied their outcomes. Demographic, clinical and laboratory data were collected and analyzed.

**Results:** A total of 58 individuals with MERS CoV infection were identified during the study period. Ten patients developed AKI and were included in the study. The mean age was 54.5 years and majority were males 8 (80%). The comorbid conditions were hypertension (5), chronic kidney disease (4), diabetes mellitus (3), ischemic heart disease (2), nephrotic syndrome (1) and dyslipidemia (2). Risk factors for MERS CoV infection included close contact with infected patient (3), camel exposure (2) and travel history to Oman (2) or Saudi Arabia (1). MERS CoV PCR was detected in nasopharyngeal aspirate (8) and sputum (2) with mean viral shedding of 13.5 days. Majority of patients 9 (90%) had severe MERS CoV infection and required critical care. AKI episodes were classified as severe stage 3 in 9 patients, and stage 2 in one patient. Mild proteinuria and hematuria were noted in urine analysis of some patients. Autoimmune workups and hepatitis serology were done for three patients and were negative. Provisional diagnosis of acute tubular necrosis due to severe sepsis and shock was considered. Imaging renal studies in all patients were negative for hydronephrosis or stones. Renal replacement therapy were needed in 7 (70%) patients and duration of range from 3 to 14 days. MERS CoV PCR was not done in urine sample.

Other complications related to severe MERS CoV infection including septic shock 6 (60%), acute respiratory failure required intubation 7 (70%) or non-invasive ventilation 2 (20%), supraventricular tachycardia 2 (20%), Anemia 3 (30%), acute ischemic stroke 1 (10%), and secondary pulmonary infections (*Influenza B*, *Klebsiella pneumoniae*, *Staph aureus*). Mortality rate was high 7 (70%) among patient with severe MERS CoV and AKI. Two patients recovered from AKI and one patient became hemodialysis dependent as he has advanced CKD at baseline.

**Conclusions:** AKI is commonly associated with severe MERS CoV infection in old patients with comorbid conditions. The mortality is high with severe infection and multi organ failure.

### SAT-029

#### THE PRACTICE PATTERN OF PREVENTIVE MEASURES FOR CONTRAST INDUCED ACUTE KIDNEY INJURY IN PATIENTS UNDERGOING PULMONARY COMPUTED TOMOGRAPHY ANGIOGRAPHY (3P - CIAKI)



ALROWAIE, F\*<sup>1</sup>, AlMatham, K<sup>2</sup>, Almousa, S<sup>3</sup>, Abonab, M<sup>3</sup>, AlQahtani, A<sup>3</sup>, AISaif, S<sup>3</sup>, Aljasser, A<sup>3</sup>, AlQuefli, K<sup>3</sup>, AlQadi, A<sup>3</sup>

<sup>1</sup>King Fahd Medical City Medicine / Nephrology section Riyadh Saudi Arabia, <sup>2</sup>King Fahad Medical City Medicine / Nephrology Riyadh Saudi Arabia, <sup>3</sup>King Fahad Medical City Medicine Riyadh Saudi Arabia

**Introduction:** Contrast-induced acute kidney injury nephropathy (CI-AKI) is a leading cause of acquired acute kidney injury and has been associated with prolonged hospitalization and adverse clinical outcomes. During the past several years, many preventive measures had been demonstrated in clinical trials to reduce the incidence of CI-AKI. Despite the recommendations supporting the use of these measures, prior studies showed that these preventive interventions are not universally implemented. The aims of our study were (1) To better understand the current practices pattern of the use of preventive strategies for CIAKI, (2) to determine the incidence of CI-AKI, and (3) to