neutrophil to lymphocyte ratio, higher levels of ferritin, CRP and d-Dimer were found to be statistically significant factors in development of AKI. Mortality was found to be significantly higher in patients with AKI (12%) compared to patients without AKI (0.8%).
Conclusions: AKI is common among patients hospitalised with COVID-19 and is associated with high mortality. Neutrophil to lymphocyte ratio, serum ferritin, CRP and d-Dimer are early markers to predict the development of AKI and assess the severity of infection, hence guide to better and appropriate measures in the treatment.

No conflict of interest

POS-207

THREE CASE REPORTS OF RENAL INFARCTION: SIMILAR CLINICAL PRESENTATION, DIFFERENT ETIOLOGIES

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Introduction: Renal infarction is a rare under-reported condition and is rarely diagnosed at presentation. As it can mimic other conditions, such as nephrolithiasis and pyelonephritis, the diagnosis is often delayed or missed. Unfortunately, this leads to late treatment initiation and therefore may result in irreversible kidney damage. The most common causes are thromboembolism and atheromatous disease. We present three case reports of renal infarction with similar clinical presentation but with distinctive etiologies and evolution.
Methods: The first patient is a 62 years old female patient with a known history of myeloproliferative syndrome presenting at the emergency department with severe respiratory distress and left acute low-back pain. CT angiography revealed pulmonary embolism. An abdominal CT was performed revealing a hypodense peripheral triangle-shaped area in the left kidney. Cytobacteriological testing of urine was normal. The patient received anticoagulation and was discharged two weeks later with no kidney damage. The second case is a 40 years old male patient with a known history of a mutation in *COL3A1* gene associated with vascular Ehlers–Danlos syndrome, who presented with acute right flank pain and fever. Urinalysis was normal. White blood cell count was elevated at 15 000 cells per cubic millimeter. Urinalysis showed 20 white blood cells per field. Abdominal computed tomography showed a triangular hypodense area in the right kidney, initially interpreted as pyelonephritis. The patient received antibiotics without clinical improvement. CT angiogram was then pursued and revealed asymmetric contrast enhancement of the right kidney. Antibiotic therapy was withheld and the patient received heparin with symptom resolution after three days of anticoagulation
Results: The third case is a 51 years old female who presented with acute abdominal pain and acute kidney injury following mitral valve repair. Acute kidney injury was considered as a complication of cardiac surgery. Urine analysis was positive for hematuria. Doppler sonography of the kidney showed multiple triangle-shaped hypoechogenic areas in both kidneys with reduced arterial flow. The patient suffered irreversible renal damage with the need for renal replacement therapy.
Conclusions: In summary, renal infarction is an easily underdiagnosed pathology due to its nonspecific presentation. It should always be considered a differential diagnosis in acute flank pain, especially when the urinalysis is negative for infection. Early diagnosis is the key to rapid recovery.

No conflict of interest

POS-208

CAUSE OF ACUTE KIDNEY INJURY AND UNILATERAL KIDNEY ENLARGEMENT IN A CHILD WITH ACUTE LYMPHOBLASTIC LEUKEMIA: A CASE REPORT

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Introduction: We want to present a rare clinical case challenging in diagnosing the cause of acute kidney injury in a child with acute lymphoblastic leukemia (ALL).
Methods: General clinical examination, ultrasound, computed tomography (CT), morphological study of the kidneys.
Results: A child, 5 years old, was admitted in severe general condition, with subfebrile temperature, skin hemorrhagic syndrome of petechial and macular type, the enlargement of neck and occipital lymph nodes, and hepatosplenomegaly. Total blood count: Hb 95 g/L; RBC $3{,}24 \times 10^{12}$/L; WBC $30{,}6 \times 10^{9}$/L; PLT 58×10^{9}/L; neutrophile 6,9%; lymphocyte 88%; monocyte 5,1%. Bone marrow evaluation: acute lymphoblastic leukemia, FAB type L1, ALL-type common. Therapy according to the protocol ALL IC-BFM-2002 was started. After one week febrile fever and abdominal pain manifested. Urinalysis: WBCs 5-10. Ultrasound has detected the enlargement of the left kidney (110×51 mm), increased echogenicity of the parenchyma with hypoechogenic sectors; dilatation of the renal pelvis. Acute pyelonephritis was suspected. Antibacterial therapy was administered. The child's condition didn't improve - febrile fever, decreased diuresis, increased serum creatinine (1,27 mg/dl). Acute kidney injury was diagnosed, stage «Injury». CT: the left kidney enlarged (106×67×56 mm), the structure is heterogeneous; no visualization of the left pyelocaliceal system, parenchyma of the left kidney does not accumulate the contrast, the left renal vein does not contrast; right kidney is not changed. Thrombosis of the left renal artery and vein were diagnosed. A left-sided nephrectomy was performed. Light microscopy of the kidney: ischemic necrosis with diffuse spread of leukemic infiltrates, fusing hemorrhages; in the paranephric body - diffuse capillary thrombosis, lymphoblastic infiltrates and hemorrhages.
Conclusions: The clinical case demonstrates challenges in identifying the causes of acute kidney injury in a child with ALL and unilateral nephromegaly. The acute kidney injury was explained by renal causes - the thrombosis of the renal artery and vein, leukemic infiltration of the kidney parenchyma.

No conflict of interest

POS-209

IMMUNE CHECKPOINTS INHIBITORS-ASSOCIATED ACUTE KIDNEY INJURY: A SINGLE-CENTRE STUDY

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Introduction: Immune checkpoints inhibitors (ICPi) have transformed the treatment and prognosis in patients with various malignancies. Having specific immune mechanism of action, these drugs can cause immune-related adverse events, including acute kidney injury (AKI). Our aim was to investigate the incidence, management, and outcomes of patients with ICPi-associated AKI.
Methods: The data of all patients receiving either avelumab, durvalumab, pembrolizumab, nivolumab, ipilimumab or atezolizumab between December 2011 and November 2020 were collected retrospectively using electronic patient records. ICPi-associated AKI (ICPi-AKI) was identified as: 1) an increase in serum creatinine (SCr) of 50% plus either tubulointerstitial nephritis on kidney biopsy, withholding ICPi, or steroids given due to AKI; 2) a doubling of SCr from baseline or requiring renal replacement therapy (RRT). ICPi-AKI had to be attributed by the treating physician and occur within 180 days after the last dose of ICPi.
Results: One thousand one hundred and seventy patients were included; 190 (14.7%) patients had AKI, with 28 (2.4%) having ICPi-AKI. Of those with ICPi-AKI, 14 had underlying CKD and 20.7% were treated with proton-pump inhibitors prior to AKI onset. Eight and twenty patients had AKI stage 1 and 2, respectively. The median time from first ICPi dose to AKI onset was 104.5 (IQR 60-198) days, and the median time from the last ICPi dose to AKI onset was 20 (IQR 17-34) days. Urinalysis was performed in four (14%) patients which showed proteinuria in 100%, haematuria in 75%, and leukocyturia in 25%. The median eosinophil percentage was 2.9 (IQR 2-4). Renal ultrasound and biopsy were performed in 18 (64%) and 3 (11%) patients, all of which revealed tubulointerstitial nephritis. Sixteen patients (58%) had extra-renal immune-related adverse events (irAE) at any time, with 7 patients experiencing other irAE concomitantly with AKI. Thirteen (46%) patients were hospitalised, and one patient required RRT.In the majority of patients (26, 93%), immunotherapy was held due to ICPi-AKI onset. 93% of patients received steroids at a median of 3 days (IQR 0-9) after the AKI onset. The initial median prednisolone-equivalent dose was 40 (IQR 31-64) mg/day. The median time to steroid tapering to 10