Azithromycin/lopinavir/ritonavir

S

Acute kidney injury following off label use: case report

A man in his 40s developed acute kidney injury (AKI) during off label treatment with lopinavir/ritonavir. Additionally, he received off-label treatment with azithromycin for COVID-19 [*routes and dosages not stated*].

The obese man who had a history of HIV on highly active antiretroviral therapy (HAART) with lopinavir/ritonavir and hypertension presented to emergency department (ED) with hypotension and dyspnoea. Two weeks prior, he visited primary care provider for fever, chills and productive cough. He then prescribed with azithromycin. However, his symptoms persisted. On examination, he was in respiratory distress with decreased breath sounds in bilateral lung fields. At the time of presentation, his baseline creatinine was unknown. His other examination was noncontributory. Fluid resuscitation with IV sodium-chloride was initiated. Urinalysis was evident for a WBC count of > 100/high-power field (HPF), RBC 3/HPF and pH 5.0. He was then diagnosed with COVID-19. Thus, he was maintained on lopinavir/ritonavir and azithromycin as an off-label treatment for COVID-19. In the ED, IV magnesium and IV terbutaline were initiated [*time to reaction onset not stated*].

For the management of acute renal injury, electrolyte imbalance, high-anion gap metabolic acidosis, rhabdomyolysis and COVID-19 pneumonia, he admitted to the ICU. In the ICU, 3 amps of IV sodium bicarbonate was administered followed by IV bicarbonate drip. Thereafter, treatment with nephrotoxic agents including off-label HAART was discontinued. On hospital day 1, he did not show significant improvement with an elevated uric acid. His renal function remained severely compromised with persistent severe metabolic acidosis. His electrolyte abnormalities persisted. Because of intractable acidosis, a haemodialysis catheter was placed for emergent dialysis. He was closely monitored in the ICU area until discharge on day 7. During the hospital stay, he received fluid resuscitation therapy. Following haemodialysis, electrolyte imbalances were corrected and glomerular filtration rate (GFR), uric acid level and CK level improved. Anion gap metabolic acidosis also resolved. Due to improvement in renal function, haemodialysis was discontinued. For AKI, COVID-19 pneumonia-induced rhabdomyolysis, direct effects of SARS-CoV-2 on renal parenchyma and off-label HAART therapy were considered as contributing factors.

Foster A, et al. It's complicated: A case report on a COVID-19-positive HIV patient presenting with rhabdomyolysis and acute kidney injury. SAGE Open Medical Case Reports 8: no pagination, 15 Oct 2020. Available from: URL: http://doi.org/10.1177/2050313X20965423

803530249