Multiple drugs

Acute pancreatitis, hypertriglyceridaemia and off-label use in coronavirus disease 2019: 2 case reports

In a report of 2 patients with coronavirus disease 2019 (COVID‐19), a 65-year-old man and a 43-year-old man were described, who received off-label therapy with hydroxychloroquine, lopinavir/ritonavir, ribavirin and tocilizumab for COVID-19. Additionally, they developed hypertriglyceridaemia or acute pancreatitis during off-label treatment with tocilizumab for COVID-19 [not all dosages stated; routes and outcomes not stated].

Case 1: The 65‐year‐old man, who was admitted to an ICU with acute respiratory distress syndrome (ARDS) and respiratory failure 8 days following the onset of symptoms, was diagnosed with COVID-19. He started receiving off-label therapy with hydroxychloroquine, lopinavir/ritonavir and ribavirin for COVID-19. Concurrently, he received propofol for sedation. Due to severe ARDS, persistent fevers and elevated inflammatory markers, he received off-label therapy with tocilizumab 800mg (8 mg/kg; total 2 doses) on day 9 and day 10 for COVID-19. Propofol had been stopped on day 10 prior to the second dose of tocilizumab. On day 11, significantly increased serum triglycerides level (1196 mg/dL; hypertriglyceridaemia) and biomarkers of acute pancreatitis (amylase 309 IU/L and lipase 104 IU/L) were noted. It was concluded that he developed acute hypertriglyceridaemia and acute pancreatitis secondary to off-label tocilizumab therapy.

Case 2: The 43‐year‐old man, who was admitted to an ICU with acute respiratory distress syndrome (ARDS) and respiratory failure 12 days following the onset of symptoms, was diagnosed with COVID-19. He started receiving off-label therapy hydroxychloroquine, lopinavir/ritonavir and ribavirin for COVID-19. Concurrently, he received propofol for sedation. Due to persistent fevers, elevated inflammatory markers and severe ARDS, he started receiving off-label therapy with tocilizumab 800mg (8 mg/kg; 1 dose) on day 13. Six hours before the initiation of tocilizumab, propofol was switched to midazolam. After tocilizumab therapy, serum triglycerides levels were noted to have peaked (1436 mg/dL; hypertriglyceridaemia) on day 16. Biomarkers for acute pancreatitis were normal. It was concluded that he developed acute hypertriglyceridaemia secondary to off-label tocilizumab therapy.

Morrison AR, et al. Acute hypertriglyceridemia in patients with COVID-19 receiving tocilizumab. Journal of Medical Virology 92: 1791-1792, No. 10, Oct 2020. Available from: URL: http://doi.org/10.1002/jmv.25907