Mesalazine/prednisolone

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Perimyocarditis, rebound effect and lack of efficacy: 2 case reports

In a report, two men aged 25–35 years were described, of whom the 25-year-old man developed perimyocarditis during treatment with mesalazine and rebound effect following tapering of prednisolone for ulcerative colitis (UC) and the 35-year-old man exhibited lack of effectiveness during treatment with prednisolone and mesalazine for UC [*not all routes and dosages stated*].

Patient A: A 25-year-old man, who had abdominal cramps, fever, headaches and diarrhoea, was admitted to the emergency department due to diarrhoea with rectal bleeding. Upon admission, he was normothermic but had mild tachycardia with stool frequency of seven times daily. Laboratory examination, stool cultures and throat swabs was commenced. He received prophylactic unspecified low-molecular weight heparins (LMWH) and empirical treatment with ciprofloxacin under suspicion of a gastrointestinal infection. He was re-evaluated two days later and persistent bloody diarrhoea was noted without respiratory symptoms or fever. Further to investigations, an infectious diarrhoea of unknown origin potentially COVID-19 infection related was determined as the throat swab was positive for SARS-CoV-2. He was discharged from hospital after the frequency of diarrhoea decreased. However, he required readmission due to recurrent bloody diarrhoea and abdominal cramps and pain. Laboratory examination showed leucocytosis, thrombocytosis, increased fibrinogen and elevated CRP. Repeat testing for SARS-CoV-2 was positive in nose or throat swabs and viral RNA was also found in stools. Endoscopic examination revealed a pancolitis with a Mayo severity score of 3. Biopsies from the terminal ileum and transverse colon were consistent with the final diagnosis of UC. He received treatment with IV prednisolone 40mg daily along with mesalazine [mesalamine] 4.8g daily. Off-label use of hydroxychloroquine was also administered for COVID-19 with loading dose of 600mg followed by 300mg after 12 hours and 300mg twice a day for the next 5days. The clinical symptoms eventually resolved. However 23 days following the initiation of mesalazine, he required readmission due to chest pain. Throat swabs remained positive for SARS-CoV-2, while a diagnosis of mesalazine induced perimyocarditis was made. Mesalamine was discontinued and perimyocarditis recovered rapidly. A few days later following the discharge after the rapid recovery, he again experienced recurrent bloody diarrhoea and abdominal discomfort, which were compatible with a flare of colitis following tapering of prednisolone dose to 25mg daily as per the prescribed steroid regimen, which was suggestive of 'rebound effect'. Eventually, throat swab and intestinal biopsies became negative for SARS-CoV-2. Afterwards, vedolizumab therapy was initiated and he achieved both clinical and endoscopic remission on the treatment, and prednisolone was successfully tapered and eventually discontinued.

Patient B: A 35-year-old man presented to the emergency department with fever, abdominal pain, diarrhoea and rectal bleeding. Laboratory examination and stool cultures were determined. Sigmoidoscopy showed the presence of severe continuous colitis with Mayo severity score of 3. After the endoscopy, his fever had aggravated and sore throat was noted. He received treatment for colitis with both oral and rectal mesalazine [mesalamine] instead of high-dose corticosteroids, as he had concurrent COVID-19 and tested positive for SARS-CoV-2 as there was uncertainity with the use at the beginning of the pandemic. His clinical status deteriorated with tachycardia, abdominal pain, bloody diarrhoea and elevated CRP levels. IV prednisolone 40mg for three days was administered along with prophylactic unspecified low molecular weight heparins. His clinical status deteriorated further with tachycardia, high stool frequency and increasing abdominal pain. Rescue therapy with ciclosporin was recommended, but abdominal X-ray showed signs of a toxic megacolon with a distended colon (>7cm) and he immediately underwent subtotal colectomy with an ileostomy construction instead of ciclosporin therapy. Histopathology after subtotal colectomy showed signs of chronic inflammation with ulcerations and distortion of epithelial architecture consistent with UC. Colonic perforation occurred during the surgery and he was transferred to the ICU due to complicated postoperative course with tachycardia, persistent fever and respiratory complaints. Chest X-ray showed pulmonary infiltrates and pleural fluid collections suggestive of pneumonia due to surgery complications. Abdominal CT showed the presence of abdominal fluid. He subsequently received cefuroxime and had gradually recovered in the following days.

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