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Chronic diarrhoea from mycophenolate mofetil-induced colitis

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DESCRIPTION

A 25-year-old female with mixed connective tissue disease (MCTD) complicated by scleroderma renal crisis presented with a 2-week history of profuse, watery diarrhoea that persisted through the night and with fasting. She has been maintained on mycophenolate mofetil (MMF) at 1000 mg/day for 1 year for her MCTD. The patient reported no recent travel or similar illness in her household. There was no associated fever, abdominal pain or blood in the stools. Stool studies were negative for both bacterial and parasitic agents. Flexible sigmoidoscopy showed mild erythema. The colon biopsies revealed apoptosis, crypt distortion and abscess; consistent with MMF-induced colitis (figures 1 and 2). Cytomegalovirus and herpes simplex virus immunostains were negative. During her hospital course, the patient received fluid resuscitation, electrolyte

repletion and discontinuation of MMF. Five days later, the patient's stool frequency decreased to twice daily until complete resolution. At 1 month follow-up, her MMF was restarted at a lower dose (500 mg/day) which was tolerated well without any recurrence of gastrointestinal issues. The presence of typical histopathologic findings, clinical improvement after MMF discontinuation and absence of any alternative cause of diarrhoea support the diagnosis of MMF-induced colitis.¹ MMF is an immunosuppressant approved for autoimmune disease and prevention of allograft rejection in transplant patients. The mechanism of MMF-induced colonic injury remains unclear. Although direct MMF colonic cytotoxicity has not been ruled out, it is postulated that the immunosuppressive effects of MMF may indirectly affect lymphocytes in the colon resulting in decreased mucosal protection.^{2 3}

Figure 1 Colon biopsy (H&E stain): crypt abscess in the centre of the lumen (arrow).

Figure 2 Colon biopsy (H&E stain): crypt drop-out and distortion (arrow).

Learning points

- ▶ MMF exposure can induce diarrhoea even several months after initiation.
- ▶ MMF-induced colitis is defined by clinical and histopathologic characteristics.
- ▶ Discontinuation or reduction of MMF dose will usually result in improvement of diarrhoea.

Competing interests None.

Patient consent Obtained.

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