Microscopic colitis associated with exposure to lansoprazole

Clinical record

Patient 1*
A 78-year-old woman who normally had one to two bowel motions a day presented with a 3-week history of gradual onset of more frequent and looser motions up to six times a day and occasionally at night. She had urgency and episodes of faecal incontinence. Her motions were watery. There was no improvement after she was treated with tinidazole. Her regular medications were alendronate, hydrochlorothiazide, irbesartan, raloxifene, thyrroxine, temazepam, aspirin, thiamine, vitamin C, glucosamine, and evening primrose oil. She had also taken lansoprazole (30 mg capsules) daily for 2 months to treat possible reflux. Sigmoidoscopy showed yellowish, watery stool with mucus and a few tiny scattered patches of intramucosal haemorrhage. Biopsy (Figure A) showed mild lymphocytic colitis (defined by the presence of more than one lymphocyte per 20 epithelial cells). Lansoprazole therapy was ceased and the diarrhoea settled within 24 hours.

Patient 2*
A 53-year-old woman presented to hospital with a 2-month history of diarrhoea and abdominal pain. She was admitted with suspected diverticulitis. Nine months before presentation, she had started taking lansoprazole (30 mg capsules) daily for heartburn. She described having bowel motions seven or eight times per day, and occasionally at night. The diarrhoea had not responded to tinidazole, metronidazole or norfloxacin. Her regular medications were gemfibrozil, tibolone, indapamide and perindopril. Colonoscopy did not detect significant abnormalities. Biopsy showed mild collagenous colitis (Figure B). Lansoprazole therapy was ceased. She was treated with loperamide, then cholestyramine and budesonide. Within 6 months, she was symptom-free without antidiarrhoeal medication.

Patient 3*
A 79-year-old woman had been seen in hospital with a sudden onset of diarrhoea 5 weeks before admission, associated with 10 kg weight loss. She had taken lansoprazole (30 mg capsules) daily for 2 weeks before the diarrhoea began. She had had up to 12 watery motions per day. The diarrhoea had not responded to norfloxacin. Her regular medications were alendronate, perindopril, potassium chloride, chlorthalidone and celecoxib. Appearance on sigmoidoscopy was normal, but biopsies (Figure C) showed mild lymphocytic colitis with occasional subepithelial collagen suggesting transition to collagenous colitis. Lansoprazole therapy was ceased, and she was treated with codeine. Her condition was much improved without antidiarrhoeal medication within a month. When reviewed 6 months later, she was having two loose motions daily, and the celecoxib (200 mg daily) was withdrawn.

* All three patients had negative results on serological tests for coeliac disease (transglutaminase and endomysial antibody) and normal serum IgA levels.
† Follow-up biopsies were not taken. § Stained with haematoxylin and eosin. ¶ Stained with Masson Trichrome, which shows collagen in green.

Microscopic colitis is increasingly recognised as a major cause of persistent diarrhoea. It is an idiopathic clinico-pathological syndrome of chronic watery non-bloody diarrhoea associated with a normal appearance on colonoscopy and specific histopathological changes of lymphocytic and/or collagenous colitis. There is a high rate of spontaneous resolution and relapse in microscopic colitis, and effective treatment is limited.

The pathogenesis of microscopic colitis is poorly understood and is thought to be related to a poorly regulated epithelial immune response to luminal or epithelial antigens including bile acids, toxins, or infectious agents. Microscopic colitis has been associated with autoimmune diseases and with exposure to medi-
Lessons from practice

- Microscopic colitis should be considered as a cause of persistent watery non-bloody diarrhoea; the two major histological forms of microscopic colitis — lymphocytic and collagenous — are probably variations of the same disorder.
- Even if the bowel appears macroscopically normal on colonoscopy, multiple biopsies should be routinely taken for histopathology, and the pathologist informed of the possibility of microscopic colitis.
- The possibility of medications as the cause of diarrhoea and microscopic colitis should always be considered; drugs that may cause the symptoms should be investigated, withdrawn, and the effects observed.
- Not all adverse drug reactions occur immediately and not all are class effects.
- Suspected adverse drug reactions should be reported to the Adverse Drug Reaction Advisory Committee for evaluation.

Our cases illustrate the importance of considering exposure to medication as a cause of chronic diarrhoea and particularly microscopic colitis, and that adverse drug reactions are not always class effects. Stopping the causative medication may reverse the abnormality in this difficult-to-treat condition. In patients with persistent watery diarrhoea, biopsies should be performed even if colonoscopic appearances are normal, and pathologists should be informed of the clinical possibility of microscopic colitis, as the histological changes may be subtle.

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