Unusual presentation of more common disease/injury

An unusual method of diagnosing a common disease

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Summary

A 34-year-old woman presented with non-bloody diarrhoea of 14 days duration and vomiting. Physical examination was unremarkable. She had hypokalaemia and metabolic acidosis. Stool studies were negative for *Clostridium difficile* toxin, faecal leucocytes and parasites. Colon appeared normal on colonoscopy. Pronounced scalloping of ileal folds was noted on ileoscopy. Ileal biopsies revealed villous blunting, crypt hyperplasia, marked intraepithelial lymphocytosis and lymphocytic infiltration of the lamina propria, consistent with lymphocytic ileitis in coeliac disease. Serology revealed elevated antitissue transglutaminase IgA antibodies (>100 U/ml). Institution of a strict gluten free diet resulted in complete resolution of symptoms. Although rare, coeliac disease can present as an acute diarrhoeal illness and should be considered after infectious aetiologies are excluded.

BACKGROUND

Our patient had a dramatic presentation of coeliac disease (CD), which affects about 1% of the US population. To our knowledge, this is the first case report of ileal scalloping in CD diagnosed on conventional ileoscopy.

CASE PRESENTATION

A 34 year-old, previously healthy woman, presented with diarrhoea of 14 days duration. She had up to 20 watery, non-bloody bowel movements each day; two postprandial episodes of vomiting and no abdominal pain or fever. Her social and family histories were unremarkable. Physical examination revealed hyperactive bowel sounds and was otherwise normal.

INVESTIGATIONS

Serum electrolyte testing revealed a potassium level of 3 mEq/l and metabolic acidosis. Stool cultures and tests for *Clostridium difficile* toxin, faecal leucocytes and parasites were negative. On colonoscopy, the colon appeared normal. Endoscopic findings after ileal intubation are shown in figure 1. Pronounced scalloping of ileal folds suggested CD. Ileal biopsies revealed villous blunting, crypt hyperplasia, marked intraepithelial lymphocytosis and lymphocytic infiltration of the lamina propria (figure 2, H&E stain, ×100), consistent with lymphocytic ileitis in CD. Upper endoscopy revealed subtle scalloping of duodenal folds and biopsies were consistent with CD (Marsh 3C). Serology revealed elevated antitissue transglutaminase IgA antibodies (>100 U/ml).

Figure 1 Pronounced scalloping of ileal folds in terminal ileum.

Figure 2 Ileal biopsy showing villous blunting, crypt hyperplasia, marked intraepithelial lymphocytosis and lymphocytic infiltration of the lamina propria.

DIFFERENTIAL DIAGNOSIS

- ▶ Coeliac disease
- ▶ Crohn's disease
- ▶ Viral, parasitic and bacterial infections.

TREATMENT

After rehydration and electrolyte repletion, strict gluten-free diet was instituted.

OUTCOME AND FOLLOW-UP

Institution of a strict gluten-free diet resulted in complete resolution of symptoms.

DISCUSSION

Intestinal involvement in CD is typically more severe in the proximal, rather than distal, small bowel. Using capsule endoscopy, distal ileal involvement was observed in 11% of CD patients.¹ Although classic findings of scalloping, mosaic pattern and villous blunting that are commonly seen on upper endoscopy are not reported in CD patients examined using conventional ileoscopy, magnified ileoscopy was reported to identify villous atrophy.² Despite normal-appearing ileal mucosa, biopsies showing lymphocytic ileitis suggest CD when more than 25 intraepithelial lymphocytes are seen per high-power field.³ Although rare, CD can present as an acute diarrhoeal illness and should be considered after infectious aetiologies are excluded.⁴

Learning points

This case highlights two important points.

- ▶ Ileal intubation with biopsy during colonoscopy has the potential to diagnose CD.
- ▶ Although rare, CD can present as an acute diarrhoeal illness and should be considered after infectious aetiologies are excluded.⁴

Competing interests None.

Patient consent Obtained.

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