Colonic single-stripe sign

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DESCRIPTION

An 81-year-old woman presented with sudden abdominal cramp-like pain with bloody diarrhoea for 4 h before admission. She had suffered three

episodes of watery diarrhoea, followed by bright red stools after finishing dinner. Vital signs and cardiopulmonary conditions were within normal limits, with no orthostatic hypotension. Mild tenderness over the right lower quadrant was noted. Initial laboratory findings were normal except for serum creatinine level, which was 1.56 mg/dL. The patient had no history of radiation exposure. Colonoscopy was performed within 6 h after her arrival because of the active bleeding. The study revealed 'colonic single-strip sign'—a linear ulcer running longitudinally, commonly found along the antimesenteric colonic wall at the sigmoid colon—suggestive of ischaemic colitis (figure 1).^{1 2} The histological finding of ischaemic colitis is focal crypt dropout in the early stage (figure 2). Advanced ischaemia shows epithelial loss, presence of acute and chronic inflammatory cells, and submucosal congestion (figure 3). To confirm diagnosis, careful biopsy was performed before terminating the session, to prevent complication. CT performed

Figure 1 Colonic single-stripe sign.

Figure 2 Detached mucosa and focal crypt dropout in early stage.

Figure 3 Epithelial loss, acute and chronic inflammatory cells, and submucosal congestion.

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Figure 4 Bowel wall thickening, thumb printing and pericolic stranding (lateral).

Figure 5 Bowel wall thickening, thumb printing and pericolic stranding (axial).

later revealed bowel wall thickening, thumb printing and pericolic stranding of the area supplied by the inferior mesenteric artery (figures 4 and 5). Potential infectious causes were ruled out based on negative findings for *Clostridium difficile* toxins A and B in stool, as well as negative stool, urine and blood culture. A non-operative approach was used, with successful reversion to a more normal colon.³

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Contributors OT was the primary physician, made the diagnosis, managed the case and prepared the first draft of the manuscript. KP contributed to the concept, and helped to draft and revise the manuscript.

Competing interests None declared.

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Learning points

- ▶ A colonic single-stripe sign is the typical colonoscopic finding of ischaemic colitis.
- ▶ Ischaemic colitis can be managed using a non-operative approach.
- ▶ Biopsy should be carefully performed to confirm the diagnosis.

REFERENCES

- 1 Green BT, Tendler DA. Ischemic colitis: a clinical review. *South Med J* 2005;98:217–22.
- 2 Zuckerman GR, Prakash C, Merriman RB, et al. The colon single-stripe sign and its relationship to ischemic colitis. *Am J Gastroenterol* 2003;98:2018–22.
- 3 Elder K, Lashner BA, Al Solaiman F. Clinical approach to colonic ischemia. *Cleve Clin J Med* 2009;76:401–9.

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