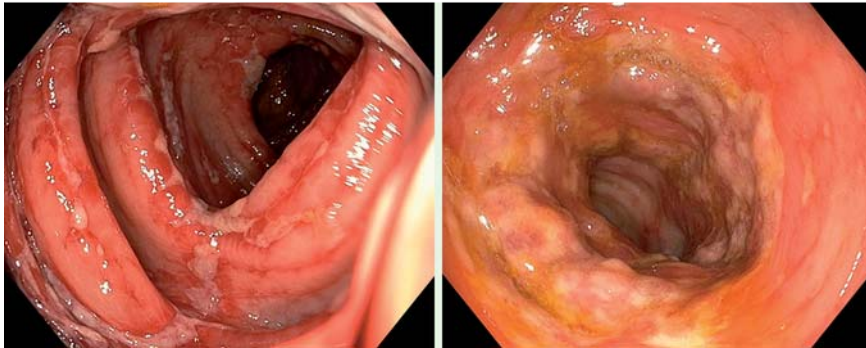
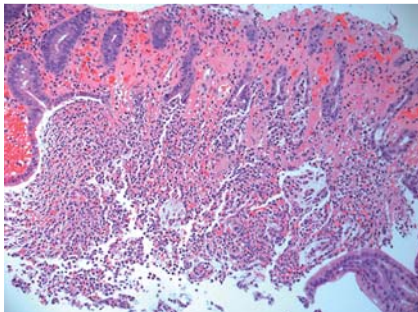


## Exercise-induced ischemic colitis in an amateur marathon runner



**Fig. 1** Patchy erythematous and edematous mucosa with ulcerations extending from the splenic flexure to the cecum with pseudomembrane formation seen on endoscopy.



**Fig. 2** Colonic biopsy showing necrotic mucosa with pseudomembrane formation (hematoxylin and eosin, ×200).

A previously healthy 25-year-old man presented to the emergency department with acute-onset diffuse abdominal pain, which started halfway through a marathon run. Soon after presentation, he had a small amount of coffee-ground emesis and 10–15 loose bowel movements with hematochezia. His abdomen was diffusely tender to mild palpation. Laboratory investigation revealed leukocytosis, mild acute kidney injury, and rhabdomyolysis. Stool cultures for bacteria, ova and parasite, and *Clostridium difficile* were negative.

Gastroscopy showed a healing Mallory–Weiss tear. Colonoscopy highlighted moderately severe, patchy colitis extending from the splenic flexure to the cecum (Fig. 1). Histological examination of the

ascending colon revealed loss of crypts, acute colitis, and pseudomembrane formation consistent with ischemic colitis (Fig. 2). The patient was managed conservatively and subsequently improved with resolution of hematochezia.

During exercise, physiologic shunting of blood flow away from the gut occurs due to a catecholamine surge that causes splanchnic circulation vasoconstriction. Typical presentation includes frequent loose stools, with visible blood or maroon-colored stools, and cramp-like or sharp diffuse abdominal pain. Symptoms may appear during or even a few hours after exercise. Most cases are self-limiting and resolve with supportive care; however, three reported cases required surgical resection due to shock, sepsis or peritonitis [1–3].

Findings on colonoscopy include patchy hemorrhagic mucosal lesions with thickened edematous mucosal folds. The colonic single-stripe sign may be seen, appearing as a single, linear ulcer running longitudinally along the antimesenteric fold [4]. If symptoms have resolved, delaying endoscopy after the 4th day is less likely to be diagnostic [5].

In conclusion, exercise-induced ischemic colitis is a rare condition but should be considered in all patients presenting with abdominal pain and hematochezia following recent strenuous exercise. With the

increase in recreational marathon runners, public awareness is crucial in order to inform individuals of the possible complications and the best ways to avoid them.

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