Pyogenic granuloma in the small intestine: a rare cause of obscure gastrointestinal bleeding

Fig. 1 Computed tomography (CT) image (coronal view) showing a strongly enhancing mass in the small intestine (arrow).

Fig. 2 Double-balloon endoscopy image showing a pedunculated polyp with a white coating, which was large and occupied the interior of the lumen.

Fig. 3 Gross appearance of the resected specimen showing that the polyp was 33 mm in diameter.

A 65-year-old man with a history of cerebral infarction was referred to our hospital for investigations to find the cause of recurring melena, which he had been experiencing for 2 months. At a previous hospital, he had had an upper gastrointestinal endoscopy and a colonoscopy that failed to show a cause for his bleeding, and an abdominal computed tomography (CT) scan, which detected a strongly enhancing mass in the upper abdomen (▶ **Fig. 1**).

We carried out double-balloon endoscopy using the antegrade approach and found a pedunculated polyp in the jejunum, the surface of which was completely covered with a white coating (▶ **Fig. 2**). The endoscope could not be inserted beyond this because the mass was occupying the lumen. Endoscopic biopsies revealed inflammatory cells with no evidence of malignancy. The polyp was considered to be the cause of his bleeding, and a segmental resection of the small intestine was performed.

Examination of the resected specimen showed that the polyp was 33 mm in diameter (▶ **Fig. 3**), and histology revealed that it was composed of numerous capillaries in an edematous stroma with an inflammatory infiltrate (▶ **Fig. 4**). These findings were consistent with pyogenic granuloma. After surgery, there was no recurrence of melena over the subsequent 18 months.

Pyogenic granulomas usually occur on the skin and in the oral cavity, and rarely in the gastrointestinal tract. Thirteen cases of pyogenic granuloma in the small intestine have been reported [1–3], and most of these were reported to have an irregular shape without surface ulceration and were reddish in color. Because pyogenic granulomas are hemorrhagic tumors, they are usually less than 20 mm in diameter (median 13 mm). To the best of our knowledge, only one case of a polyp larger than 30 mm has been reported [4], and our case is the largest pyogenic granuloma so far reported in the small intestine.

Pyogenic granuloma should be considered as a rare cause of obscure gastrointestinal bleeding, although it is difficult to diagnose pyogenic granuloma prior to surgery because of its unusual endoscopic appearance.

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Fig. 4 Microscopic appearance of the hematoxylin and eosin (H&E)-stained resected specimen showing: **a** at low power, a polypoid, vascular lesion with a stalk, which was covered with fibrin; **b** at high power (magnification $\times 400$), numerous capillaries lined with endothelial cells, consistent with pyogenic granuloma.

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