

Jejunal pyogenic granuloma diagnosed and treated with spiral enteroscopy

A 67-year-old woman presented to our hospital with a 1-year history of melena. She also had history of hepatitis B and C virus-related liver cirrhosis complicated by hepatocellular carcinoma. On examination, her conjunctivae were pale and her nadir hemoglobin was 5.1 g/dL. Esophago-gastroduodenoscopy and colonoscopy showed no definite bleeding source, and a diagnosis of obscure gastrointestinal bleeding was made. Capsule endoscopy demonstrated blood oozing in the proximal jejunum (● Fig. 1) and several angioectasia were identified in the small bowel. We performed spiral enteroscopy perorally using an overtube (Discovery Small Bowel overtube; Spirus Medical, Stoughton, Massachusetts, USA) and an enteroscope (Fujinon EN-450T5; Fujinon, Saitama, Japan), which demonstrated a 1.5-cm sub-pedunculated tumor with superficial ulceration in the proximal jejunum, indicative of the bleeding point (● Fig. 2). We removed the tumor using snare polypectomy; bleeding from the tumor site after polypectomy was successfully stopped with hemoclips (● Fig. 3). Pathological evaluation of the resected tumor revealed many capillaries of various sizes with acute and chronic inflammatory cell infiltrates, confirming the diagnosis of pyogenic granuloma (● Fig. 4).

Pyogenic granuloma is a common lobular capillary hemangioma of the skin and mucosa and occurs with or without surface ulceration. Although rare, pyogenic granulomas can occur anywhere in the gastrointestinal tract with the small bowel accounting for 50% of all cases [1]. The tumor usually occurs in middle and late age, and it appears to have a higher prevalence in Asian populations [2]. Although the pathogenesis of pyogenic granuloma remains unknown, several etiological factors have been proposed, including infection, mechanical irritation, and hormones. Both the present case and our previously reported case had liver cirrhosis. Symptoms of small-bowel pyogenic granuloma include abdominal pain, hemorrhage, and

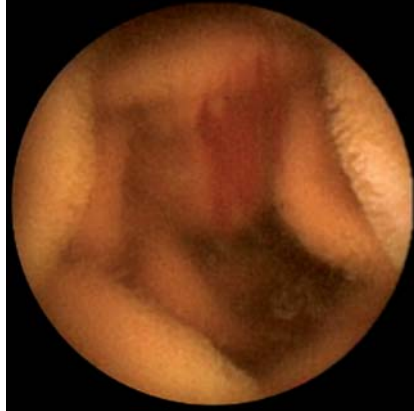


Fig. 1 Oozing blood identified in the proximal jejunum during capsule endoscopy in a 67-year-old woman with a history of melena and liver cirrhosis.

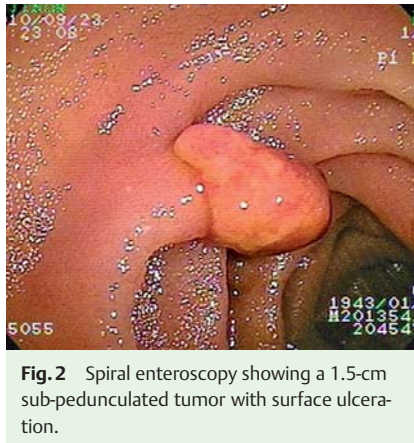


Fig. 2 Spiral enteroscopy showing a 1.5-cm sub-pedunculated tumor with surface ulceration.



Fig. 3 The tumor bled easily after a snare polypectomy had been done; hemostasis was successfully achieved with three hemoclips.

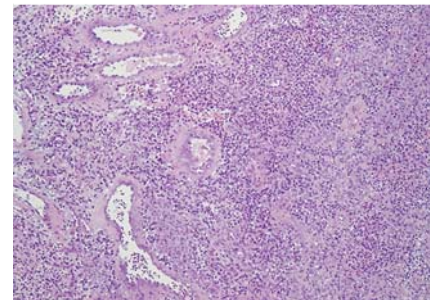


Fig. 4 Histological section of the resected tumor showing many capillaries of various sizes arranged in a lobular pattern, accompanied by acute and chronic inflammatory infiltrates and surface ulceration, confirming the diagnosis of pyogenic granuloma (hematoxylin and eosin, magnification $\times 100$).

intussusception. Capsule endoscopy and double-balloon enteroscopy are useful modalities in detecting small-bowel pyogenic granuloma [3,4]. Endoscopic resection via deep enteroscopy is an effective method of treating small-bowel pyogenic granulomas [2,4,5], but it carries the risk of post-polypectomy bleeding owing to the tumor's rich blood supply and a high rate of recurrence if not resected completely.

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Competing interests: None

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Bibliography

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