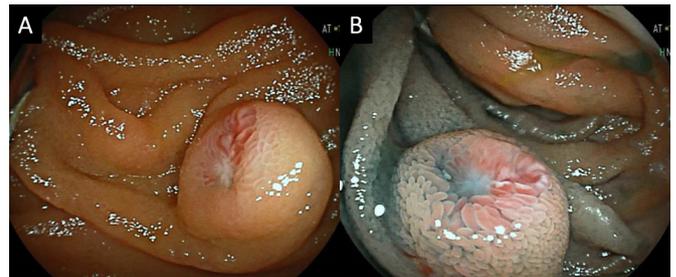


## EDITOR'S QUIZ: GI SNAPSHOT

## Chronic GI bleeding in a middle-aged woman

### CLINICAL PRESENTATION

A middle-aged woman without any underlying systemic disease was referred to our hospital due to a 1-month history of recurrent black diarrhoea and anaemia. At presentation, her vital signs were stable and the physical examination was unremarkable except for pale conjunctiva. Laboratory tests showed iron-deficiency anaemia with a haemoglobin concentration of 7.3 g/dL (reference range, 11.1–15.1 g/dL). As she had no severe symptoms of anaemia, we administered oral iron preparations without blood transfusion and her anaemia was gradually corrected. Oesophagogastroduodenoscopy, colonoscopy and contrast-enhanced abdominal CT revealed no cause of bleeding, so obscure GI bleeding was suspected. Capsule enteroscopy revealed black fluid in the proximal small intestine, and subsequent peroral double-balloon enteroscopy detected a 1 cm diameter



**Figure 1** Endoscopic findings of the jejunum on white light endoscopy (A) and chromoendoscopy with indigo carmine dye (B).

hemispheric elevated lesion at the upper jejunum (figure 1A, B). The lesion was non-pulsatile and hard in consistency, appearing as a submucosal tumour (SMT). An ulcer was located at the top of the lesion, suggesting the source of bleeding, although no blood clot was present around the site.

### QUESTIONS

What is your diagnosis? Do you try to obtain biopsy specimens from this lesion?

*See page 1429 for answer*

## EDITOR'S QUIZ: GI SNAPSHOT

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See page 1385 for question

## ANSWER

Jejunal submucosal aneurysm.

We considered the lesion to be a solid tumour such as a GI stromal tumour and injected India ink nearby to facilitate identification for surgical resection without obtaining a biopsy specimen to avoid uncontrollable haemorrhage. The patient underwent laparoscopic segmental resection. Histopathological examination of the lesion revealed a 5 mm diameter sac-like submucosal arterial aneurysm (figure 2A–C).

Submucosal aneurysm of the small intestine is a rare GI vascular lesion originally reported by Levine and Valk.<sup>1</sup> Once bleeding develops, massive haematochezia usually results with a sudden onset, leading to life-threatening haemorrhagic shock. It is quite uncommon to see chronic gentle bleeding such as in our case. As emergency surgery is usually performed before an endoscopic diagnosis has been made, to the best of our knowledge, this is the first case in which endoscopic images of the lesion at haemostasis were obtained, except for one previous report of a ruptured case.<sup>2</sup> According to an endoscopic classification system for small-intestinal vascular lesions, the Yano-Yamamoto classification,<sup>3</sup> this lesion could be classified as type 4. Initially, it may be difficult to identify this lesion as a vascular lesion. Note that obtaining biopsy specimens from SMT-like lesions without first ruling out vascular lesions by endoscopic ultrasonography or other imaging carries a potential risk of massive bleeding.

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**Contributors** HK participated in the diagnosis and drafted the manuscript. MF participated in the diagnosis. TI supervised the manuscript. All authors read and approved the final manuscript.

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**Figure 2** Macroscopic view of the cut surface of the resected lesion (A). Histopathological findings of H&E stain (B) and Elastica van Gieson stain (C). The aneurysm contained an organised haematoma and communicated with two arteries but no veins. Abnormal vessels indicative of an arteriovenous malformation were not found.



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## REFERENCES

- Levine J, Valk AD. Aneurysm with rupture of a submucosal artery in the jejunum: case report. *Am J Clin Pathol* 1944;14:586–9.
- Chiba H, Endo K, Fujishima F, Shimosegawa T, et al. A case of a ruptured submucosal aneurysm of the small intestine identified using double-balloon enteroscopy. *Clin J Gastroenterol* 2016;9:49–54.
- Yano T, Yamamoto H, Sunada K, Hayashi Y, et al. Endoscopic classification of vascular lesions of the small intestine (with videos). *Gastrointest Endosc* 2008;67:169–72.