A 54-year-old woman with a 2-week history of left upper abdominal pain was admitted to our hospital. Joint pain was not reported. Abdominal CT scan revealed wall thickening from the third portion of the duodenum to the upper jejunum, with surrounding lymphadenopathy. Single-balloon endoscopy (SBE) showed edema, hyperemia, and ulcers from the second portion of the duodenum to the upper jejunum, while the third portion of the duodenum showed more severe damage (Fig. 1).

Biopsy specimens showed deposition of immunoglobulin A in the vascular wall (Fig. 2a). The level of serum factor XIII was 26% (normal: ≥ 70%), supporting the diagnosis of Henoch–Schönlein purpura (HSP). Oral administration of 40 mg prednisolone was initiated. The abdominal pain disappeared on the day after prednisolone administration. SBE performed 2 weeks after corticosteroid therapy showed remarkably ameliorated duodenal and jejunal lesions.

Gastrointestinal symptoms occur in 78.2% of patients with HSP, and of these abdominal pain is the most common symptom [1]. Esophagastroduodenoscopy findings demonstrated the second portion of the duodenum to be the most frequently involved part of the upper gastrointestinal tract in patients with HSP [1,2]. Using video capsule endoscopy, petechiae/redness has been found throughout the small intestine of patients with HSP [3]. The present case demonstrated a remarkable difference in the severity of mucosal injuries between the second and third portions of the duodenum, which was detected by SBE, but would have been impossible to identify by conventional esophagastroduodenoscopy.

We conclude that SBE should be considered in patients with HSP to evaluate duodenal and upper jejunal injury, to assess the severity of mucosal damage, and to determine the appropriate therapeutic strategy.

**Severe duodenojejunitis in a case of adult-onset Henoch–Schönlein purpura**

**Fig. 1 a–d** Findings of single-balloon endoscopy of the duodenum and upper jejunum in a patient with adult-onset Henoch–Schönlein purpura. **a** A small shallow ulcer in the second portion of the duodenum. **b** Multiple round ulcers with elevated surroundings in the third portion of the duodenum. **c** Segmental 5-cm-long ulcer with petechiae in the third portion of the duodenum. **d** Circular ulcer in the upper ileum.

**Fig. 2 a** Immunohistological staining of the duodenal biopsy specimen demonstrates vascular deposition of immunoglobulin A. **b** Hematoxylin–eosin staining of the skin biopsy specimen demonstrates perivascular granulocyte accumulation.

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**Competing interests:** None
H. Matsumoto, N. Oshitani, K. Aomatsu, I. Suwa
Department of Gastroenterology, Izumiotsu Municipal Hospital, Izumiotsu City, Osaka, Japan

References

Corresponding author
N. Oshitani
Department of Gastroenterology
Izumiotsu Municipal Hospital
16-1, Shimojuou-machi
Izumiotsu City
Osaka 595-3027
Japan
Fax: +81-725-32-8056
endoscope@hosp-ozu-osaka.jp