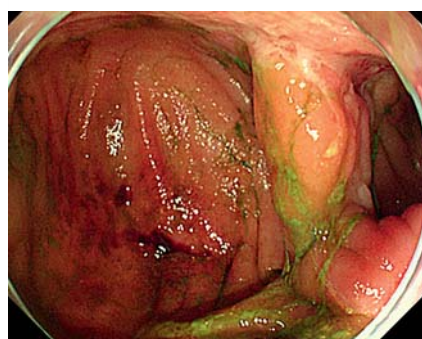


Unusual case of a large small-bowel enteroenteric fistula successfully closed using purse-string sutures



► **Fig. 1** A large fistula in the second portion of the duodenum.



► **Fig. 2** The jejunoileal lumen.



► **Fig. 3** Closure of the fistula orifice using purse-string sutures.

A 28-year-old man was diagnosed with colonic Crohn's disease with previous symptoms of diarrhea, weight loss, and vomiting 8 years ago. He was continually prescribed sulfasalazine (3 g/day) from



► **Video 1** Closure of the large small-bowel enteroenteric fistula.

the first diagnosis. During the medication period, these symptoms were successfully relieved. However, he was readmitted to our hospital 1 week ago with complaints of refractory diarrhea and vomiting.

Physical examination was normal except for diffuse abdominal tenderness, whereas laboratory tests revealed hemoglobin 73 g/L, potassium 3.3 mmol/L, sodium 128.6 mmol/L, and albumin 13.7 g/L. After the patient's nutritional status had been improved, esophagogastroduodenoscopy was performed and showed a large fistula in the second portion of the duodenum (► **Fig. 1**), extending to the jejunoileal lumen through the fistula tract (► **Fig. 2**). A small-bowel enteroenteric fistula was diagnosed.

We used purse-string sutures, with an endoloop and hemostatic clips, to successfully close the fistula orifice (► **Fig. 3**, ► **Video 1**). The patient's symptoms resolved after the procedure, and he was switched to anti-tumor necrosis factor agents for further treatment.

Duodenal fistulas in patients with Crohn's disease are rare and surgical treatment is usually recommended [1]. To our knowledge, this is the first case report of a large small-bowel enteroenteric fistula successfully closed using purse-string sutures.

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Competing interests

The authors declare that they have no conflict of interest.

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