Unusual case of a large small-bowel enteroenteric fistula successfully closed 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 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 (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.
The authors

De-feng Li, Su-zhu Zhu, Zheng-pei Xu, Jun Yao
Department of Gastroenterology, the 2nd Clinical medicine College (Shenzhen People’s Hospital) of Jinan University, Shenzhen, China

Corresponding author

Li-sheng Wang, MD
Department of Gastroenterology, The Second Clinical Medicine College (Shenzhen People’s Hospital) of Jinan University, 1017 Dong men North Road, Luo hu District, Shenzhen 518020, P.R. China
Fax: +86-755-25533118
wanglsszrmyy@163.com

* These authors contributed equally

Reference


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