Long-term endoscopic follow-up after closure of a post-bariatric surgery fistula with a cardiac septal defect occluder

Bariatric surgery is currently the most effective treatment strategy for obesity; however, post-surgical fistulas may occur in up to 8.3% of patients following traditional Roux-en-Y gastric bypass (RYGB) [1]. Currently endoscopic treatment of these complications remains challenging, with unsuccessful fistula closure occurring in 20% of patients [1, 2]. More recently, the use of a cardiac septal defect occluder (CSDO) device has been proposed as a novel treatment for the closure of gastrointestinal fistulas. A CSDO is a double-disc self-expanding closure device made of nitinol and interwoven polyester. The successful use of CSDOs in the management of gastrointestinal surgical and bariatric leaks has been reported; however, there are limited data regarding long-term outcomes [3, 4]. In this video, we describe the successful closure of a gastrocutaneous fistula using a CSDO and demonstrate persistent closure at long-term follow-up (Video 1). A 36-year-old man with a history of RYGB 3 years previously presented to our institution with a gastrocutaneous fistula. Initial treatment with a fully covered self-expandable metal stent (SEMS) was unsuccessful, and the patient subsequently underwent treatment with a CSDO [5]. The CSDO procedure was immediately successful with closure of the gastrocutaneous fistula and, at 1-year follow-up, endoscopy demonstrated an intact, well-positioned CSDO occluder, at 3-year follow-up.

Fig. 1 Endoscopic images showing: a the well-positioned cardiac septal defect occluder, with closure of the gastrocutaneous fistula at 1-year follow-up; b no evidence of leakage or a fistulous tract, despite apparent migration of the cardiac septal defect occluder, at 3-year follow-up.

Fig. 2 Image from an upper gastrointestinal series showing no evidence of gastrointestinal leakage or a fistula, and no evidence of the previously placed cardiac septal defect occluder.

Video 1 Long-term follow-up of successful gastrocutaneous fistula closure using a cardiac septal defect occluder.
term treatment for patients with postsurgical gastrocutaneous fistulas. While more data are needed to verify these results, CSDOs may be a feasible alternative for gastrointestinal leaks and fistulas that are refractory to traditional endoscopic techniques.

Competing interests

The authors declare that they have no conflict of interest.

The authors

Diogo Turiani Hourneaux de Moura1, Mateus Bond Boghossian1, Bruno Salomão Hirsch1, Thomas R. McCarty2, Alberto Jose Baptista3, Eduardo Guimarães Hourneaux de Moura1
1 Gastrointestinal Endoscopy Unit, Hospital das Clínicas da Faculdade de Medicina da Universidade de São Paulo, São Paulo, Brazil
2 Gastroenterology, Hepatology, and Endoscopy Division, Harvard Medical School, Brigham and Women’s Hospital, Boston, Massachusetts, USA
3 Department of Endoscopy, Hospital de Clínicas Caracas, San Bernardino, Venezuela

Corresponding author

Mateus Bond Boghossian, MD
Av. Dr Enéas de Carvalho Aguiar, 225, 6º andar, bloco 3, Cerqueira César, São Paulo, SP, 05403-010, Brazil
mateus.boghossian@hc.fm.usp.br

References