Endoscopic closure of gastrocolocutaneous fistula following percutaneous endoscopic gastrostomy, by OverStitch Endoscopic Suturing System

A 48-year-old liver transplant patient with acute graft rejection, sepsis, and malnutrition was referred to our unit for a percutaneous endoscopic gastrostomy (PEG).

The PEG procedure was uneventful, and a correct positioning of the bumper in the stomach was documented. Three days after the procedure, vomiting and abdominal distension occurred. A computed tomography (CT) scan with hydro soluble contrast agent showed dislocation of the bumper into the transverse colon, with bowel opacification, due to the presence of a gastrocolic fistula. No leak of contrast into the peritoneal cavity was detected (▶ Fig. 1).

Endoscopy showed a transmural defect of 2 cm in diameter in the anterior wall of the gastric body (▶ Fig. 2). To close the fistula, we first used forceps to scar the mucosal margins in order to promote cicatrization. We then approximated the opposite margins of the wall defect by placing three simple sutures using the OverStitch Endoscopic Suturing System (Apollo Endosurgery, Austin, Texas, USA) (▶ Video 1). An intraprocedural contrast radiograph showed no colonic opacification.

A same-session colonoscopy revealed, in the transverse colon, the bumper (▶ Fig. 3a,b), which was grasped and retrieved from the colon following sectioning of the extracorporeal PEG tube. The fistula was then closed with clips (▶ Fig. 3c). At the end of the procedure, contrast radiography found no leak of contrast from the colonic side of the fistula; the cutaneous side of the fistula healed by secondary intention. An endoscopic control after 10 days showed both gastric and colonic aspects of the fistula correctly repaired. Regular enteral feeding through nasogastric tube was resumed.

A gastrocolic fistula is a rare complication of PEG and may require surgery [1]. Endoscopic management with clips has been described [2, 3], even if it may not be feasible in the event of a large fibrotic wall defect. In our case, we found that the OverStitch Endoscopic Suturing System is a feasible and effective treatment tool for a large gastrocolocutaneous fistula.

Endoscopy_UCTN_Code_CPL_1AH_2AI

Competing interests

None
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DOI https://doi.org/10.1055/a-0956-6792
Published online: 2019
Endoscopy
© Georg Thieme Verlag KG
Stuttgart · New York
ISSN 0013-726X

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Video 1 Video showing endoscopic closure of the gastric aspect of the gastrocolic fistula using the OverStitch Endoscopic Suturing System.

Fig. 3 Colonoscopy. a PEG bumper migrated into the transverse colon; b colonic wall defect following removal of the bumper; c endoscopic closure of the colonic aspect of the gastrocolic fistula with clips.