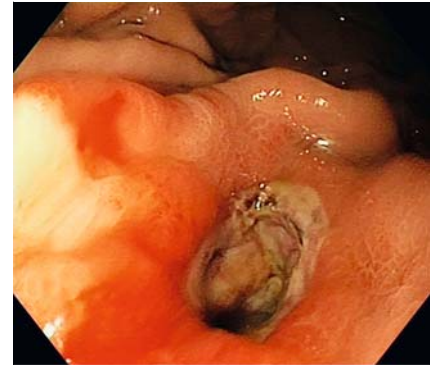


Endoscopic closure of gastrocolocutaneous fistula following percutaneous endoscopic gastrostomy, by OverStitch Endoscopic Suturing System



► **Fig. 1** Contrast-enhanced (Gastrografin) computed tomography scan. Percutaneous endoscopic gastrostomy (PEG) device migrated into the transverse colon, with bowel opacification and without extraluminal spreading of the contrast medium.



► **Fig. 2** Upper gastrointestinal endoscopy showing a transverse defect of the anterior wall of the gastric body, covered with fibrin.

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 hydrosoluble 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 transverse 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. 3 a, b**), which was grasped and retrieved from the colon following sectioning of the extracorporeal PEG tube. The fistula was then closed with clips (► **Fig. 3 c**). 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.

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Competing interests

None



► **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.



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

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