

Recurrent rectosigmoid volvulus and fatal peritonitis after percutaneous endoscopic sigmoidostomy

An 83-year-old woman with severe dilated cardiomyopathy and recurrent sigmoid volvulus (● Fig. 1) who was resident in a nursing home refused to undergo surgery and instead decided to undergo formation of a percutaneous endoscopic colostomy. A colonoscopy was performed as far as

the cecum after oral preparation, so that the left colon was detorsioned. At 22 cm from the anal verge, which was the first part of the sigmoid colon that could be transilluminated, a standard 22-Fr percutaneous endoscopic gastrostomy (PEG) tube (Compat Nuport, Novartis, Basel,

Switzerland) was inserted transanally using the classical pull-through technique (● Fig. 2). The patient recovered uneventfully and was discharged 3 days later. An initial follow-up visit did not reveal any complications (● Fig. 3).

The patient re-presented complaining of abdominal distension 7 weeks after the procedure. Abdominal radiography was consistent with a recurrent lower gastrointestinal volvulus (● Fig. 4). The typical spiral pattern of the mucosa could be seen at 14 cm from the anal verge, and the bowel was detorsioned by colonoscopy. Immediately after this colonoscopy, the patient developed severe abdominal pain and hypotension. An emergency computed tomography (CT) scan showed a massive pneumoperitoneum and that the colostomy flange had come loose within the colonic loop (● Fig. 5). Emergency surgery revealed a hole about 1 cm in diameter in the sigmoid colon with stool spillage. A resection of the rectosig-



Fig. 1 Abdominal radiograph in an 83-year-old woman showing the classical “coffee bean” sign of a sigmoid volvulus.



Fig. 2 Endoscopic view showing the internal bumper of the colostomy tube within the sigmoid colon.



Fig. 3 **a** Abdominal computed tomography (CT) scan showing the colostomy tube 1 month after percutaneous endoscopic insertion. **b** Photograph of the colostomy tube exiting through the abdominal wall following percutaneous endoscopic insertion.



Fig. 4 Abdominal radiograph taken on re-admission 7 weeks later showing a recurrent lower gastrointestinal volvulus 7–8 cm below the sigmoid fixation.



Fig. 5 Abdominal computed tomography (CT) scan revealing a massive pneumoperitoneum and the internal bumper of the colostomy no longer affixed to the abdominal wall.

moid colon with formation of an end colostomy was performed, but unfortunately the patient died 24 hours later from cardiopulmonary failure. A definitive therapy for recurrent sigmoid volvulus in high risk surgical patients is yet to be determined. Lately percutaneous

endoscopic sigmoidostomy has gained interest as a promising minimally invasive approach [1–4]. This report stresses that recurrence may still occur below the sigmoid fixation, an area that is out of reach for this endoscopic procedure because of lack of transillumination. Furthermore,

fatal peritonitis has been reported to be a serious delayed complication [5] because a colocutaneous fistula may take longer to mature than a PEG owing to the fragility of the colonic wall and its bacterial contents. This case emphasizes the need for proper post-procedural care of patients following this procedure.

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References

- 1 Cowlam S, Watson C, Elltringham M et al. Percutaneous endoscopic colostomy of the left side of the colon. *Gastrointest Endosc* 2007; 65: 1007–1014
- 2 Baraza W, Brown S, McAlindon M et al. Prospective analysis of percutaneous endoscopic colostomy at a tertiary referral centre. *Br J Surg* 2007; 94: 1415–1420
- 3 Mullen R, Church NI, Yalamarthi S. Volvulus of the sigmoid colon treated by percutaneous endoscopic colostomy. *Surg Laparosc Endosc Percutan Tech* 2009; 19: e64–e66
- 4 Al-Alawi IK. Percutaneous endoscopic colostomy: A new technique for the treatment of recurrent sigmoid volvulus. *Saudi J Gastroenterol* 2010; 16: 120–121
- 5 Bertolini D, De Saussure P, Chilcott M et al. Severe delayed complication after percutaneous endoscopic colostomy for chronic intestinal pseudo-obstruction: a case report and review of the literature. *World J Gastroenterol* 2007; 13: 2255–2257

Bibliography

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