Progressive malnutrition despite percutaneous endoscopic gastrostomy

CLINICAL PRESENTATION

A 52-year-old woman was admitted to the medical department of an external secondary care centre for progressive weight loss and diarrhoea. Three and a half months before the current presentation, the patient had received a percutaneous endoscopy gastrostomy (PEG) due to severe malnutrition caused by dysphagia in the setting of bulbar impairment by obstructive hydrocephalus. The current symptoms had started several weeks before the presentation and did not respond to changes of oral diet or enteral nutrition. The patient reported a weight loss of 2 kg; laboratory testing revealed an elevated C reactive protein (43 mg/L), hypoalbuminaemia (17 g/L) and hypophosphataemia (0.7 mmol/L) but no further abnormal results. Levels of faecal calprotectin were normal; microbiological testing of stool samples revealed no pathological findings. After admission, the patient was treated with cholestyramine as well as pancreatic enzymes, and enteral nutrition was increased. These measures had no effects on bowel movements, however, and the patient was unable to regain weight. An abdominal CT scan and a fluoroscopy of the PEG were performed (figure 1A,B). The patient was transferred to our department and a colonoscopy was performed (figure 1C).

QUESTION

What is the diagnosis? Which further information should be obtained before treatment?

ANSWER

Abdominal imaging, together with endoscopic visualisation of the internal PEG bumper within the transverse colon, demonstrates PEG dislocation and the

Figure 1 (A) Abdominal CT scan, (B) fluoroscopy after injection of iodinated contrast through the percutaneous endoscopy gastrostomy tube and (C) colonoscopy.

Figure 2 Colonoscopy showing PEG tube after removal of the inner bumper with colocutaneous fistula (A,B), which was closed by clip application (C). Gastroscopy with application of indigo carmine revealing gastrocolic fistula (D), which was treated by gastric clip application (E). Note the placement of a new PEG. PEG, percutaneous endoscopy gastrostomy.

formation of a colocutaneous fistula. This rare complication is thought to result from accidental puncture of the interposed transverse colon during PEG insertion and frequently remains asymptomatic for several weeks to months.¹ Typical presenting symptoms are diarrhoea, faecal discharge through the PEG tube and failure to gain weight despite adequate enteral nutrition.² In light of the dislodgement of the internal bumper, it is important to determine whether a gastrocolic fistula is present, which in our patient was confirmed by colonoscopy after intragastric administration of dye (figure 2D).

Most published cases of colocutaneous fistulas were treated either surgically or conservatively by simple removal of the misplaced device; however, there is one report of successful endoscopic management.³ Given the oligosymptomatic presentation with absent peritonism, we decided to treat our patient endoscopically by removing the dislodged device and closing both fistulas with endoclips (figure 2A–C,E). This approach allowed the subsequent intragastric air inflation and insertion of a new PEG in the same setting. After enteral feeding through the new tube, the patient gained weight and her general status improved quickly. A follow-up visit 3 weeks later revealed complete healing of the colocutaneous fistula.

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