Migration of a percutaneous endoscopic gastrostomy tube into the transverse colon: a forgotten cause of refractory diarrhea

An 87-year-old demented man had a percutaneous endoscopic gastrostomy (PEG) tube inserted for palliation of dysphagia due to a large, epiphrenic esophageal diverticulum. After PEG feeding for 1 month, he complained of persistent, disabling diarrhea. Potential infective or organic causes were excluded after extensive negative investigations and feeding regimen adjustment. An esophagogastroduodenoscopy (EGD) incidentally performed for investigation of anemia did not reveal the PEG button anywhere inside the stomach. Because of these peculiar findings, a contrast-enhanced computed tomography (CT) scan was performed. Surprisingly, the PEG button was found inside the transverse colon (**Fig. 1**).

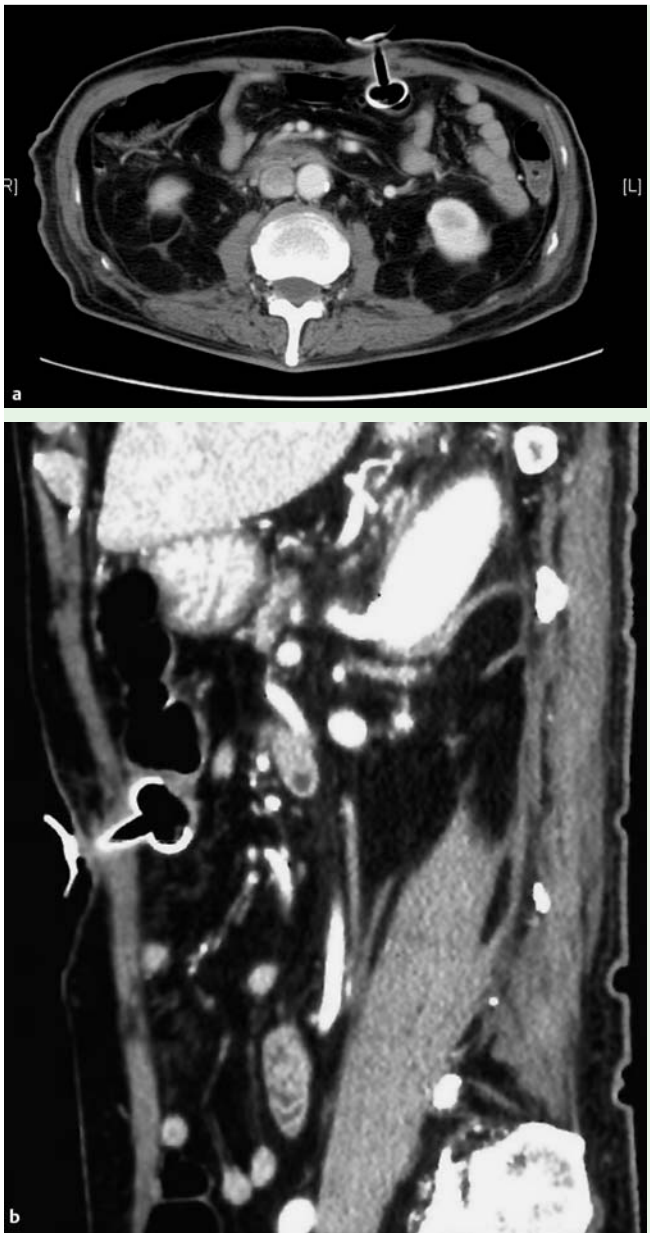

Fig. 1 **a** Axial and **b** sagittal computed tomography (CT) scans showing the percutaneous endoscopic gastrostomy (PEG) button inside the transverse colon.

A water-soluble contrast study showed the PEG button had migrated into the mid-transverse colon with antegrade contrast filling down to the sigmoid colon and retrograde filling up to the cecum (**Fig. 2**). There was no abnormal communication between the colon and the stomach to indicate the presence of a gastrocolic fistula. Because of the absence of sepsis or peritonitis, the patient was managed conservatively and the PEG tube was removed. The associated colocutaneous fistula finally closed uneventfully 1 week later.

Migration of the PEG tube into the colon with or without an associated gastrocolic fistula is an exceedingly rare complication of this relatively safe endoscopic procedure [1–4]. Most patients present subacutely with disabling diarrhea (50%) or faecal leakage (39%), several months after initial insertion or on tube replacement; a small minority (11%) is asymptomatic with the diagnosis established incidentally [4]. The underlying cause is mostly related to inadvertent puncture of the transverse colon and the stomach during initial insertion [5]. Subsequent excessive tension on the tube can result in complete migration via the iatrogenic gastrocolic fistula into the colon. Post-surgical adhesion, high-riding transverse colon, and stomach over-distension during EGD are known predisposing risk factors [4]. When such a complication is suspected, contrast study via the PEG tube is imperative in establishing the diagnosis. More than half of patients do not have a residual gastrocolic fistula on presentation [4]. Emergency laparotomy as part of the management of these patients is indicated only when peritonitis ensues, as otherwise, spontaneous closure of the colocutaneous and gastrocolic fistulas typically occurs after PEG tube removal.

Competing interests: None

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Fig. 2 Water-soluble contrast study through the percutaneous endoscopic gastrostomy (PEG) tube showing contrast filling in the colon.

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