

Letter to the Editor

Gastric Outlet Obstruction Secondary to PEG Tube Migration

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We report a case of a 59 year old male patient who was ventilator dependent following a motor vehicle accident and required a percutaneous endoscopic gastrostomy (PEG) tube for feeding. The patient was transferred to our institution due to leakage of contents around the PEG site.

Exam revealed coffee ground leakage from the gastrostomy insertion site. Upper endoscopy revealed marked fluid-filled gastric distention, traces of dark blood and a large fundic clot without any gastric mucosal lesions. The balloon of the PEG tube was noted to have migrated to the duodenal bulb causing gastric outlet obstruction. The balloon then was deflated and repositioned (see Fig.1). A large ulcer was noted on the anterior wall of the duodenal bulb (see Fig.2A and 2B) in the region of balloon impingement, which likely represented the site of bleeding.

PEG placement was first described by Gauderer et al in 1980 [1]. Since then PEG tube feeding has become the preferred method of long term enteral nutrition. PEG tube placement is well tolerated by most patients with a short-term mortality risk of less than 1% [2] Reported rates of complications following PEG placement vary widely [3]. Major complications arise in 2.7%-2.8% of cases, and minor complications in 6%-7.1% [2,4] Risk factors include age, comorbidities, and a history of aspiration [5].

Risk factors for gastrostomy balloon migration include placement of the tube close to the pylorus, spasm and abnormal strong gastric peristalsis, postoperative adhesions and the absence of an external bolster [6-8].

In our patient, distal migration of the PEG tube balloon into the pylorus and subsequent gastric outlet obstruction resulted from improper positioning and the length of intragastric tube that allowed the balloon to prolapse into the duodenal bulb leading to mucosal ulceration and gastric outlet obstruction.

Balloon migration is treated by repositioning the gastrostomy tube after deflating the balloon. The balloon should then be re-inflated and secured against the anterior abdominal wall. Subsequent confirmation of PEG tube position is recommended, by

aspiration of gastric contents or injection of radiographic contrast with follow-up imaging.

Although PEG tubes offers a safe and effective method of long term enteral nutrition, serious complications can occur during placement, mandating operator experience and meticulous follow-up tube care by nursing staff. Awareness of these complications is necessary to ensure early recognition and prompt intervention.

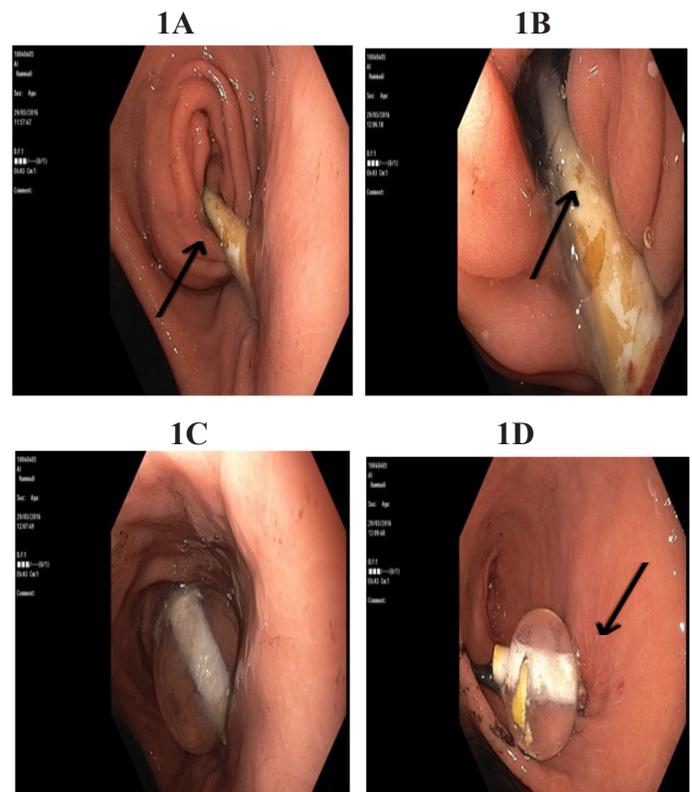


Figure 1A, 1B, 1C, 1D: Upper endoscopy images showing balloon migration through the duodenal bulb. Arrows in 1A, B showing the balloon migrating through the pylorus. Balloon deflated inside the duodenal bulb then the tube is repositioned in the anterior gastric wall. 1D arrow showing the insertion site at the lesser curvature.

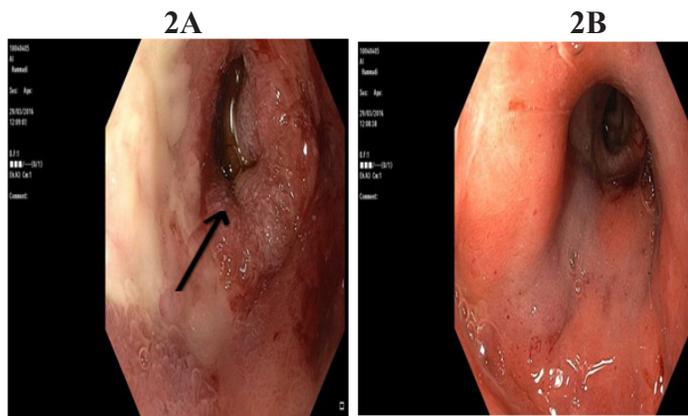


Figure 2A and 2B: Upper endoscopy images showing large ulcer in the duodenal bulb at the balloon migration site. The arrow showing the inflammation and ulceration.

Conflict of Interest

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Potential competing interests: No conflicts of interest.

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