A Rare Complication of Percutaneous Endoscopic Gastrostomy (PEG) Tube Removal Causing Intermittent Gastric Outlet Obstruction.

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BACKGROUND

- Percutaneous endoscopic gastrostomy (PEG) tubes, introduced in 1980, are overall safe.
- Removal is achieved via percutaneous or endoscopic means and the rate of complications vary but can be as low as 1-2%.
- Major complications include bleeding, aspiration pneumonia, internal organ injury, buried bumper syndrome, and tumor seeding of the stoma.
- After placement, minor complications including granuloma formation, local wound infection, peristomal leakage, and tube dislodgement.
- This case presents the rare complication of intermittent gastric outlet obstruction (GOO) due to internal bumper dislodgement during PEG tube removal via external traction.

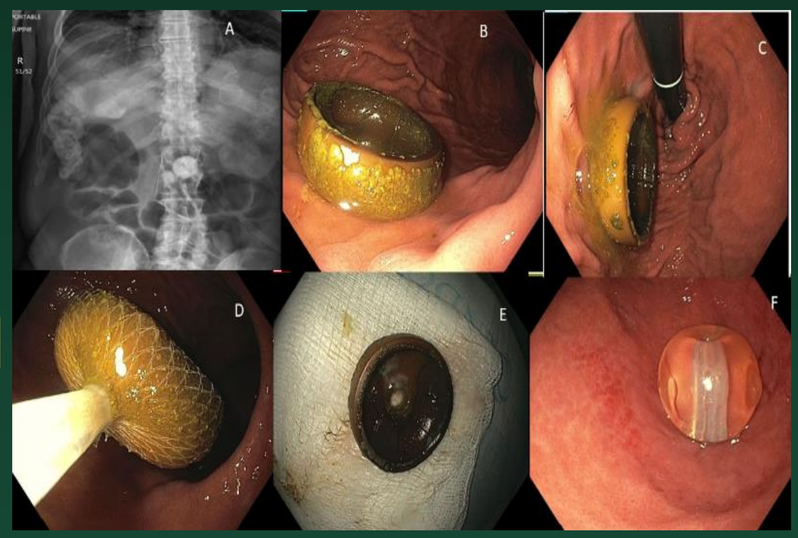
HISTORY

- A 64 year old male with amyotrophic lateral sclerosis (ALS) complicated by chronic respiratory failure and dysphagia required PEG-tube removal via external traction due to leakage malfunction.
- Prior tube had been in use for 3 years and was exchanged to a 22Fr balloon G tube.
- Removal was uncomplicated, but post procedurally, patient complained of epigastric pain, nausea and lack of bowel movements, concerning of gastric outlet obstruction vs. small bowel obstruction.
- Epigastric tenderness and hypoactive bowel sounds were present on exam. Abdominal x-ray showed round density in LUQ concerning for a foreign body.

CASE DESCRIPTION/METHODS

- On day 3 post exchange, GI was consulted and performed EGD for foreign body removal.
- An old internal PEG tube bumper was seen freely mobile within the gastric antrum. Extensive antral erosions were present.
- Internal bumper of 2.5 cm was removed with a Roth net.
- Patient declined any further pain or discomfort immediately after the procedure.

FIGURE 1.



LEGEND:

A- Abdominal KUB showing possible foreign body within stomach following G - tube exchange

B- Retained internal bumper of G tube within gastric body

C- Retained internal bumper of G tube within gastric body

D- (retroflex view)

E- Removal of G tube's internal bumper from the stomach using Roth net

F- Successfully retrieved internal bumper of G tube

G- Internal balloon of newly replaced G tube within gastric body

CONCLUSIONS

- This case reports the unusual complication of gastric outlet obstruction related to a 2.5 cm residual bumper in the gastric antrum after removal of G tube.
- Removal of PEG tube by cutting the tube at the skin level and waiting for natural/ passage has been described in the literature.
- Long term complications of this, is unknown and a combined retrospective and prospective study revealed that visible passage was only noted by 55% of patient with mean passage time being 2.4 days. Similar to our patient, only one patient was described to have reported to have pain until passage of the PEG after 4 days.
- This case describes the importance of a systematic form of G tube removal that ensure that tube remains intact after removal.
- Awareness should be made about more frequent G tube exchange.
- Commercial US manufacturers recommend replacement of non-balloon tubes on every 6-12 months and balloon tubes every 3-6 months prior to occurrence of any malfunction.

REFERENCES

- Percutaneous endoscopic gastrostomy: Indications, technique, complications and management Rahnemai-Azar AA, Rahnemaiazar AA, Naghshizadian R, Kurtz A, Farkas DT.. *World J Gastroenterol* 2014; 20(24): 7739-7751 [PMID: 24976711 DOI: 10.3748/wjg.v20.i24.7739]
- Removal of peg-tubes by cutting-the-tube: shortand long-term complications Schwab, Dieter ; Melzner, Winfried ; Muehldorfer, Steffen M ; Hahn, Eckhart G Elsevier Inc Gastrointestinal endoscopy, 2000-04, Vol.51 (4), p.AB218-AB218
- PEG or PEG Button Replacement: Willy-Nilly or Evidence-Based? - Practical Gastro