

A Rare Case of Spontaneous Migration of Enteral Feeding Tube Causing Severe GI Bleeding

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Abstract: Esophagocoloplasty is a major surgery done for corrosive esophageal stricture. It is usually done with feeding jejunostomy for early enteral nutrition in the postoperative period. The common complications following esophagocoloplasty are anastomotic stricture, adhesive obstruction, malnutrition and anemia. Here we present an unusual cause of lower gastrointestinal bleed in a 14 year old boy who underwent esophagocoloplasty due to internal dislodgement and migration of enteral feeding tube, managed with relaparotomy and retrieval of tube

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I. Introduction

Esophagocoloplasty is one of the major surgery done to bypass the corrosive esophageal stricture using colonic conduit. For early enteral feeding in a chronically malnourished patient feeding jejunostomy (FJ) is done either during esophagocoloplasty or before it. The FJ procedure can be associated with several mechanical complications like obstruction, displacement, misplacement, volvulus, kinking, coiling and migration apart from nutritional and metabolic complications. Among the mechanical complications, tube blockage and dislodgment are well known. The complication of tube dislodgment frequently occurs externally than migration internally. We describe a rare case of complete internal dislodgment and migration of the enteral feeding tube which was causing severe anemia and malnutrition which was diagnosed and retrieved by laparotomy.

Case report

A 14-year old boy presented to the emergency with complaints of excessive tiredness and dyspnea on exertion for the duration of 3 months with melena. He had undergone esophagocoloplasty for corrosive esophageal stricture with FJ 4 years back, at our institute. After the initial surgery, patient was taking oral diet with FJ tube for supplementary nutrition. He was discharged for domiciliary care on twelfth postoperative day. Then patient has lost to follow up for 3 years and for the past 3 months his tube was not seen. He was extensively evaluated in hematology department for anemia and was then referred to our department, he had been taking oral feeds with no history of dysphagia and was poorly built and malnourished with severe pallor. Abdominal examination revealed a midline scar. Skin around the FJ site was healed well and contracted. Per rectal examination revealed black tarry stools. Rest of the physical examination was unremarkable. There were no clinical signs of bowel obstruction or peritonitis. Blood investigations revealed severe anemia with hemoglobin of 3.9 mg/dl. Patient was immediately resuscitated with blood transfusion and evaluated for GI bleeding with UGI endoscopy which showed a stricture at oesophagocolonic anastomosis which was dilated and rest were normal. Colonoscopy also didn't show any findings. Since patient continued to lose blood, it was decided to take CT abdomen which showed a foreign body in right hypochondrium with normal vessels without any site of bleeding. Patient was transfused 10 units of packed cell because of continuous blood loss and hence taken up for relaparotomy and found migrated feeding tube in the proximal ileum 100 cm from DJ flexure which was completely adherent to the wall. 1 cm longitudinal enterotomy was made and it was retrieved completely and closed with vicryl 2-0 in two layers. Since then patient started improving with hemoglobin maintained at 10 gm/dl, started on normal diet and passing normal yellow coloured stools.

II. Discussion

FJ is usually done as a part of major upper gastrointestinal surgeries like oesophagocoloplasty for enteral feeding in early postoperative period. This is because early administration of enteral nutrition has several usefulness being more physiological. Tubes that are used for this purpose ranges from a simple nasogastric tube, Foley's catheter, mushroom tip catheter to special catheters based on operating surgeon's preference. We had

preferred No. 12-Fr plasticsuction catheter in this patient. The usual complications of FJ include blockage of tube, peritubal leak, wound infection, intraperitoneal leak, intestinal obstruction, tube migration, tube dislodgment and fistulations.¹⁻⁵ The complication of tube dislodgmentinternally and complete intestinal migration is very rare and only a few case reports have been published on this topic till date that too causing severe GI bleeding causing 10 units transfusion is even more rare. To the best of our knowledge this is the first case to be reported. Complete enteral migration has been reported with a 28-F silicone catheter with a mushroom tip⁶ and an 18-F Levine's tube⁷. In another report⁸ 28-F Pezzer catheter was used in a male patient with carcinoma stomach and this catheter had migrated into theintestinal tract. In all these case reports⁶⁻⁸, it was expelled without any complications by 5, 20 and 18 days respectively. The possible explanation for complete migration in our case is the patient lost follow up and breakage of the anchoring stitch followed by the intestinal peristalsis caused entire tube migration. In our case, the patient had severe GI bleeding because the tube eroded the wall and with foreign body reaction it had become adherent to ileal wall which was in contrast to most studies in which it usually gets expelled spontaneously. We report this case to increase the awareness regarding this rare complication of FJ tubecausing malnutrition and GI bleeding.

Comparison of our present case with previous published reports on this topic is summarized in Table 2.^{6-8, 11}

Table 1: Summary of reported cases of complete enteral migration of FJ tubes

Study (Year) Gender	Age (Years)/	Diagnosis tube Method	Type of FJ days*	Retrieval	No. of
Polychronidis et al (2003) ⁶	65/M	Advanced gastric carcinoma	28-F Mushroom tip	Spontaneous	5
Bose et al (2005) ⁷	18/M	Corrosive poisoning	18-F Levin tube	Spontaneous	20
Ozben et al (2011) ⁸	65/M	Advanced gastric Carcinoma	28 F Pelzer	Colonoscopy facilitation	18
Tiwari et al (2011) ¹¹	52/F	Advanced Gastric carcinoma	18-F Foley's catheter	Neither passed/retrieved	Expired 18 ^m day
Present case	14/M	corrosive stricture	14-F suction tube	relaparotomy	90

Fixing the tube secured to the skin, special gauze and tape stabilization, usage of retention disk externally and usage of retention ring over the foley's catheter, are all the means of preventing tube migration⁵⁻⁹. Also, patients who are with FJ tube and discharged for the domiciliary care should be taught not only about the nutritional aspects but also regarding FJ tube care and its complications. Patients must be educated to report early when they notice break in anchoring suture or decrease in length of tube to prevent this disaster.⁵ Most of the cases are managed conservatively with close observation both clinically and radiologically to see for its progress as well as any development of complications. Surgical or endoscopic means of removal are usually warranted when there is no progress or any complications like obstruction, perforation or fistula development which are usually very rare^{8,10,11} with bleeding being the most rare complication as seen in our case

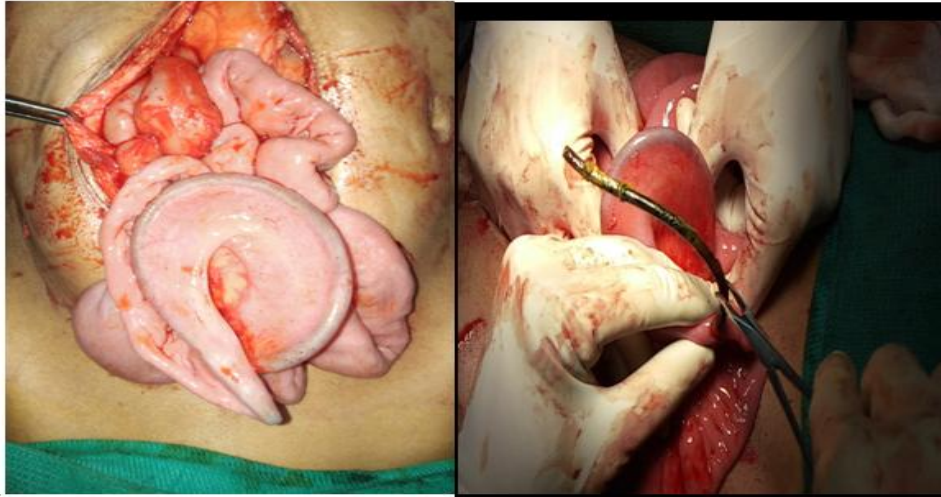


Figure 1 – FJ tube inside the bowel

Figure 2- tube retrieval

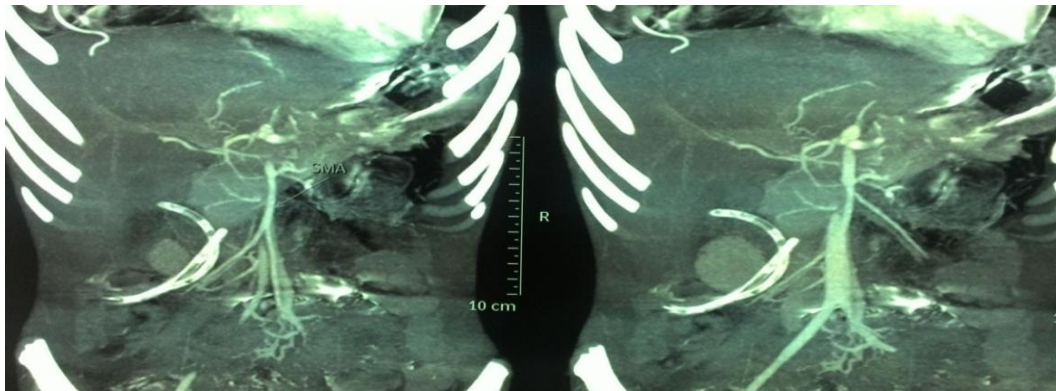


Figure 3 - CT film showing the foreign body

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