CASE REPORT

Jejuno-jejunal intussusception: an unusual complication of feeding jejunostomy

Sunil Krishna, Raghunath Prabhu, Siddharth Thangavelu, Rajgopal Shenoy

Kasturba Medical College,
Manipal, Karnataka, India

Correspondence to
Dr Raghunath Prabhu,
drprabhu81@yahoo.co.in

SUMMARY

The jejuno-jejunal intussusception is a rare complication of jejunostomy tube placement. We are reporting a case of 33-year-old man who was suffering from absolute dysphagia due to carcinoma of cricopharynx with advanced metastatic disease, who underwent Stamm's feeding jejunostomy as a part of palliative care. After 1 month he presented with colicky type of pain in the abdomen and vomiting. Sonogram of abdomen revealed a target sign and a feeding tube in a dilated jejunum. Abdominal CT proved the sonographic impression of jejuno-jejunal intussusception. He, therefore, underwent exploratory laparotomy and resection and anastomosis of the intussuscepted bowel. New feeding jejunostomy (FJ) was done distally from the anastomotic site. As per the literature this complication has been reported in Witzels jejunostomy. In our case the patient had undergone Stamm's jejunostomy with placement of a Ryle's tube. Intussusception should be considered if a patient comes with abdominal pain and vomiting following FJ.

BACKGROUND

Feeding jejunostomy (FJ) is a lifeline for patients with absolute dysphagia. FJ is usually not associated with major complications requiring surgery. Those patients who are having persistent pain and vomiting, a diagnosis of intussusception should be considered, even though rare. Operative treatment will be required in patients having the above persistent symptoms thereby reducing the morbidity and suffering.

CASE PRESENTATION

A 33-year-old man diagnosed with inoperable carcinoma of the cricopharynx underwent palliative feeding jejunostomy and was discharged on post-operative day 5. After 1 month he presented with colicky type of pain in the abdomen and vomiting. Sonogram of abdomen revealed a target sign as well as a feeding tube in a dilated jejunum. CT proved the sonographic impression of jejuno-jejunal intussusception (figure 1). He underwent exploratory laparotomy and there was an antegrade jejuno-jejunal intussusception which was 5 cm distal to the entry of jejunostomy tube (figure 2). A 15 cm long fleshy sausage like tubular intestinal mass was found at the intussusception site. The colour of the bowel was pink and normal but oedematous. The intussusception could not be reduced. There was another intussusception 10 cm distally (figure 3).

Figure 1 Antegrade intussusception of the jejunum away from the point of entry of the tube.

INVESTIGATIONS

- ▶ Haematology and biochemistry laboratory values were normal.
- ▶ CT showed jejuno-jejunal intussusception.

DIFFERENTIAL DIAGNOSIS

Sub-acute intestinal obstruction secondary to stenosis.

TREATMENT

Resection of the involved segment of small intestine was performed. Bowel continuity was maintained with a jejuno-jejunal anastomosis. New feeding jejunostomy was placed 15 cm distal to the anastomotic site.

Figure 2 Proximal jejuno-jejunal intussusception.

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Figure 3 Another reducible jejuno-jejunal intussusception distal to the primary one.

OUTCOME AND FOLLOW-UP

Postoperative recovery was uneventful and he was discharged after 2 weeks. On follow-up the feeding jejunostomy was functioning well and patient had gained weight.

DISCUSSION

Feeding jejunostomy is a feeding tube in the proximal jejunum, primarily for enteral feeding. Enteral feeding is the most preferable route for nutritional support due to its trophic effects on the gastrointestinal tract causing less bacterial translocation and low infective complications when compared with the parenteral route.¹ There are many methods for feeding jejunostomy: Stamms, longitudinal Witzel, transverse Witzel, open gastrojejunostomy, needle catheter technique, percutaneous endoscopy and laparoscopy.²

The common complications of tube jejunostomy described in literature are mechanical, infectious, gastrointestinal and metabolic abnormalities. These may be minor or major requiring medical or surgical interventions. These complications can be early (<30 days) or late (>30 days).³ Major complications are small-bowel narrowing, extra luminal tracks or collections, jejunal haematomas and focal intussusception of the small bowel at the site of the jejunostomy tube.⁴ Jejunostomy tube-induced intussusception is rare with an incidence of 1%.^{5, 6} Intussusception may be transient or intermittent. Common presentations are bilious vomiting, pain and sometimes transient mass per abdomen or may be entirely asymptomatic. Predisposing factors may be men, young infants and the presence of distal pigtail on the tube.⁷

The diagnosis of jejunostomy tube-induced intussusceptions is difficult as it may not disturb with tube feeding. Usually diagnosis is arrived on the basis of clinical symptoms and sonography or tomographic scans.⁸ The mechanism of jejunostomy tube-induced intussusceptions is not known. Couple of theories has been proposed.^{8, 9} It may be due to the tip of the tube acting as a lead point and dragging of the bowel; tube-induced inflammatory reaction causing hypertrophy of the mucosa which forms the lead point; retrograde peristalsis of jejunum due to vomiting and injecting force during feeding using an infusion pump which also acts as a lead point. Poorly built patients have reduced fatty tissue (omentum, mesentery), allows free movement of intestine which also is an added risk factor.⁹ In our case the intussusception was away from the point of entry and also not near the tip of the tube. The exact mechanism for the intussusception was not understood.

Jejunostomy tube-induced intussusception usually resolves spontaneously but also may require operative intervention. Usually tube-induced intussusceptions are managed by changing the tube to standard or short tube without distal pigtail,³ or reduction by injection of air or contrast via the tube or exchange over a wire under fluoroscopic guidance.⁸ Radiological reduction by air enema or contrast medium provides uncertain results.¹⁰ In our case intussusception was not reducible and hence resection and anastomosis of the involved segment was carried out. Since the patient was in absolute dysphagia, new feeding jejunostomy was placed distal to the anastomosis. We were not able to find any literature in favour of Stamms feeding jejunostomy induced jejuno-jejunal intussusceptions in patient with absolute dysphagia.

Learning points

- ▶ Feeding jejunostomy is a feeding tube in the proximal jejunum, primarily for enteral feeding in patients with dysphagia.
- ▶ Major complications are small-bowel narrowing, extra luminal tracks or collections, jejunal haematomas and focal intussusception of the small bowel at the site of the jejunostomy tube.
- ▶ Jejunostomy tube-induced intussusception is rare with an incidence of 1%.
- ▶ Jejunostomy tube-induced intussusception usually resolves not only spontaneously but also may require operative intervention.
- ▶ We recommend Foleys tube for feeding jejunostomy (FJ).

Contributors RP was involved in concept and design of the case report. RS is the guarantor. SK was involved in manuscript preparation and editing. ST was involved in definition of intellectual content and literature search.

Competing interests None.

Patient consent Obtained.

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