

## Case Report:

### A rare case of spontaneous anterograde migration of enteral feeding tube

H. Narendra,<sup>1</sup> A. Ramesh,<sup>1</sup> R.A. Tankshali<sup>2</sup>

<sup>1</sup>Department of Surgical Oncology, Sri Venkateswara Institute of Medical Sciences, Tirupati

<sup>2</sup>Department of Surgical Oncology, Gujarat Cancer and Research Institute, Ahmedabad

---

#### ABSTRACT

Feeding jejunostomy is done as a part of major upper gastrointestinal surgeries including oesophagectomy. The procedure is associated with various mechanical, nutritional, infective and metabolic complications. Complete enteral migration is a very rare complication. We describe the rare occurrence of complete internal dislodgement and migration of enteral feeding tube in a 55-year-old lady who underwent transthoracic oesophagectomy for oesophageal carcinoma with gastric pull-up and feeding jejunostomy and our experience with conservative management of this condition.

**Key Words:** Feeding jejunostomy, Jejunostomy complications, Tube migration

Narendra H, Ramesh A, Tankshali RA. A rare case of spontaneous anterograde migration of enteral feeding tube. J Clin Sci Res 2013;2:34-6.

---

#### INTRODUCTION

Feeding jejunostomy (FJ) is an invasive procedure which is done whenever enteral nutrition is desired but patient cannot consume food by the oral route.<sup>1,2</sup> The procedure can be performed under local, regional or general anaesthesia. There are various techniques of performing the procedure, such as, open, laparoscopic and percutaneous approaches, among others.<sup>3</sup> The procedure is associated with several mechanical, nutritional, metabolic complications and sepsis (Table 1).<sup>4-10</sup> Among the mechanical complications, tube blockage and dislodgment are well known. The complication of tube dislodgment is more commonly external displacement rather than internal migration. We describe a rare case of complete internal dislodgment and migration of the enteral feeding tube.

---

#### CASE REPORT

A-55-year old lady who had undergone transthoracic oesophagectomy for oesophageal carcinoma with gastric pull-up and feeding jejunostomy one month back, at the Surgical Oncology service, Gujarat Cancer and Research Institute, Ahmedabad presented to the emergency service of the institute with a complaint of pain in the abdomen for 2 days. At the time of initial surgery she had developed a minor breakdown of the neck anastomosis and developed salivary leak

on tenth postoperative day. This was managed conservatively and she was discharged for the domiciliary care on twelfth post-operative day. At the time of discharge, she was instructed not to take anything orally and continue FJ feeds. At the time of presentation to the emergency department, she had been taking oral feeds for the past one week and her feeding tube could not be seen for the last 3 days. Physical examination revealed an upper abdominal midline scar which had healed well. Skin around the FJ site was excoriated; rest of the physical examination was unremarkable. There were no clinical signs of bowel obstruction or peritonitis. Plain radiograph of the abdomen (erect posture) (Figure 1) revealed completely migrated FJ tube without any signs of intestinal obstruction or perforation. As there were no features of obstruction or peritonitis she was managed conservatively by administering laxatives and the steady progress of the passage through the intestine was monitored with serial abdominal radiographs (Figure 2). On seventh day she passed the whole tube per-rectum along with faeces. Comparison of the observations documented in previous published reports on this topic and the observations from the present case report are summarized in Table 2.<sup>6-8,11</sup>

---

#### DISCUSSION

Apart from other well-known indications, FJ is done as a part of major upper gastrointestinal

Received: 22 August, 2012.

**Corresponding Author:** Dr H. Narendra, Department of Surgical Oncology, Sri Venkateswara Institute of Medical Sciences, Tirupati. **e-mail:** drnarendrah@yahoo.co.in

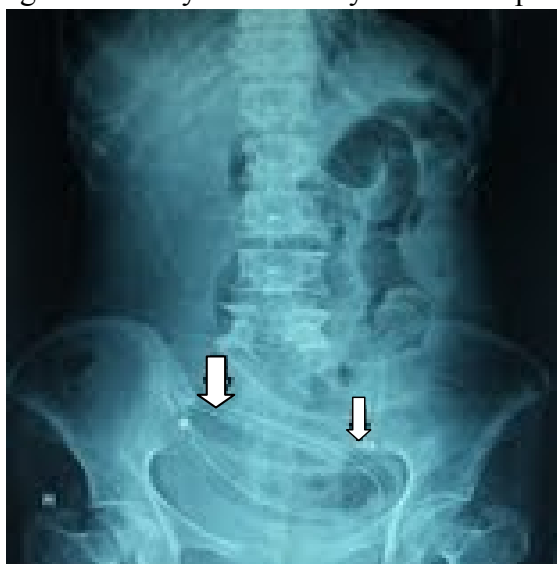
**Table 1: Complications of feeding jejunostomy**

<b>Mechanical</b>	<b>Nutritional</b>	<b>Gastrointestinal</b>
Obstruction	Vitamin deficiency	Diarrhea
Displacement	Mineral and trace element deficiency	Constipation
Misplacement	Essential fatty acid deficiency	Vomiting
Volvulus		Colic
Kinking and coiling	<b>Metabolic</b>	Distension
Migration	Hyperglycaemia	<b>Others</b>
<b>Septic</b>	Hyperkalaemia	Pneumatosis intestinalis
Pneumonia	Hypophosphataemia	
Skin site infection	Hypomagnesaemia	
subcutaneous abscess	Hypozaemia	

surgeries whenever oral feeding is withheld in the post-operative period for several days. This is because early institution of enteral nutrition is more physiological, economical and has several benefits. The placement of FJ tube after oesophagectomy is a standard practice. There are various techniques of performing the procedure and tubes used for the purpose also range from a simple nasogastric tube, Foley's catheter, mushroom tip catheter to special catheters depending on surgeon's preference. We had preferred No. 18-F all silicone Foley's catheter in this patient. The common complications of an open FJ include tube blockage, peritubal leak, wound infection, intraperitoneal leak, intestinal obstruction, tube migration, tube dislodgment and fistulations.<sup>1-5</sup> The complication of internal tube dislodgment and complete enteral migration is very rare and only a few case reports

have been published on this topic till date. Complete enteral migration has been reported with a 28-F silicone catheter with a mushroom tip (Silastic Malecot catheter)<sup>6</sup> and an 18-F Levine's tube.<sup>7</sup> In another report<sup>8</sup> 28-F Pezzer catheter was used in a male patient with advanced carcinoma stomach and this catheter had migrated into the intestinal tract. In all the above three case reports,<sup>6-8</sup> the tube was expelled without any complications by 5, 20 and 18 days respectively (Table 2). The possible explanation for complete migration in our case was the breakage of the anchoring sutures followed by distal migration of the Foley's balloon induced by the intestinal peristalsis leading to anterograde migration of the entire tube. In our case also the patient had eventually expelled the tube spontaneously without any complications.

We report this case to increase the awareness regarding this rare but vexing complication of



**Figure 1:** Plain erect radio graph of the abdomen showing the feeding jejunostomy tube (arrow heads)



**Figure 2:** Serial radiograph showing progress of the feeding jejunostomy tube (arrows)

**Table 2: Summary of reported cases of complete enteral migration of FJ tubes**

Study (Year)	Age (Years)/ gender	Diagnosis	Type of FJ tube	Retrieval Method	No. of days*
Polychronidis et al (2003) <sup>6</sup>	65/M	Advanced gastric carcinoma	28-F Mushroom tip (Malecot Cathether)	Spontaneous	5
Bose et al (2005) <sup>7</sup>	18/M	Corrosive poisoning	18-F Levin tube	Spontaneous	20
Ozben et al (2011) <sup>8</sup>	65/M	Advanced gastric carcinoma	28 F Pezzer	Colonoscopic faciliation	18
Tiwari et al (2011) <sup>11</sup>	52/F	Advanced gastric carcinoma	18-F Foley's catheter	Neither passed/retrieved	Expired on 18 <sup>th</sup> day
Present case	52/F	Oesophageal carcinoma	18-F Foley's catheter	Spontaneous	7

\* time elapsed (days) for the FJ tube to be expelled/retrieved  
M=male; F=female; FJ=feeding jejunostomy

spontaneous enteral migration of a feeding jejunostomy tube. Secure fixation of the feeding tube to the skin, special gauze and tape stabilization, use of an external retention disk and a retention ring over the catheter, particularly when Foley's catheter is used, as a feeding tube, may all help to prevent its migration.<sup>5-9</sup> Further, patients who have had a FJ tube placed and are being discharged for the domiciliary care need to be educated well not only regarding the nutritional aspects but also about the care of the FJ tube and associated common complications. Patients should report to the health care providers at the earliest if they notice breakage of the anchoring suture or shortening length of the external portion of the tube to prevent such a mishap.<sup>5</sup> In majority of the cases treatment is conservative, with serial clinical and radiological observation for the progress of the tube passage and development of any complications. The indications for removal by surgical intervention or endoscopic techniques include non-progress of the passage and development of any complications such as obstruction, perforation or fistulation which are very rare.<sup>8,10,11</sup>

## REFERENCES

- Couper G. Jejunostomy after oesophagectomy: a review of evidence and current practice. *Proc Nutr Soc* 2011;70:316-20.
- Gupta V. Benefits versus risks: a prospective audit. Feeding jejunostomy during esophagectomy. *World J Surg* 2009;33:1432-8.
- Tapia J, Murguia R, Garcia G, de los Monteros PE, Onate E. Jejunostomy: techniques, indications, and complications. *World J Surg* 1999;23:596-602.
- Liao GS, Hsieh HF, Wu MH, Chen TW, Yu JC, Liu YC. Knot formation in the feeding jejunostomy tube: a case report and review of the literature. *World J Gastroenterol* 2007;13:973-4.
- Cassaday M, Kadakia SC, Yamamoto K, Parker A. Foley feeding catheter migration into the small bowel. *J Clin Gastroenterol* 1992;15:242-4.
- Polychronidis A, Karayiannakis AJ, Perente S, Botatis S, Simopoulos C. Enteral migration of a Pezzer tube after a feeding jejunostomy: report of a case. *Surg Today* 2003;33:620-2.
- Bose AC, Shankar RR, Kate V, Ananthakrishnan N. Spontaneous antegrade enteral migration of feeding jejunostomy tube. *Indian J Gastroenterol* 2005;24:74.
- Ozben V, Karatas A, Atasoy D, Simsek A, Sarigül R, Tortum OB. A rare complication of jejunostomy tube: Enteral migration. *Turk J Gastroenterol* 2011;22:83-5.
- Kadakia SC, Cassaday M, Shaffer RT. Prospective evaluation of Foley catheter as a replacement gastrostomy tube. *Am J Gastroenterol* 1992;87:1594-7.
- Kamar M, Bar-Dayana A, Zmora O, Ayalon A. Small bowel obstruction from a dislodged feeding tube. *Age Ageing* 2004;33:81-2.
- Tiwari S, Ganguly M. Spontaneous enteral migration of feeding jejunostomy tube : report of a case. *Surgical clinics of India*. 2011;1(1); Available at URL: <http://www.surgicalclinicsofindia.com/articles/1/1/spontaneous-enteral-migration.html>. Accessed on November 30,2012.