Gastric outlet obstruction: An unusual complication of feeding jejunostomy

Umesh Jethwani, Nikhil Bansal

ABSTRACT

Introduction: Enteral nutrition is very important part of management of surgical patients. In cases of corrosive esophageal stricture feeding jejunostomy plays important role in providing nutrition, maintenance of gut structure and function. Though commonly performed surgery, various complications (mechanical, infectious, gastrointestinal and metabolic) have been reported.

Case Report: We are reporting a rare complication of gastric outlet obstruction developing in postoperative period of feeding jejunostomy done for corrosive oesophageal stricture.

Conclusion: High index of suspicion is required to diagnose this condition in a patient of feeding jejunostomy in postoperative period. In such case operative intervention is required to correct the underlying pathology.

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CASE REPORT

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Keywords: Gastric outlet obstruction, Feeding jejunostomy, Esophageal stricture

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INTRODUCTION

Feeding jejunostomy is a very important route of providing enteral nutrition in cases of corrosive esophageal stricture. Feeding jejunostomy can be made by open method, percutaneous method or laparoendoscopic assisted method [1]. Various indications-laparotomy patients in whom a complicated postoperative recovery is expected, those with a prolonged fasting period, those in a hyper catabolic state, or those who will subsequently need chemotherapy or radiotherapy [2]. Although it is an excellent method for surgeons for providing nutritional support, maintenance of gut structure and function, various complications have been associated with this surgery [3]. Among these complications (mechanical, infectious, metabolic) gastric outlet obstruction due to kinked feeding tube is very rare and never reported. The purpose of this article is to report this unusual case we have encountered.

CASE REPORT

A 36-year-old male presented to emergency room with progressive abdominal distension and obstipation from nine days. Patient had history of corrosive induced esophageal stricture, for which feeding jejunostomy was done at a peripheral hospital 10 days back. On examination, he was dehydrated, pulse 96/minute, blood pressure 80/60 mmHg. Distension was present in upper abdomen, bowel sounds were absent and succussion splash was present. There was also a midline scar of previous surgery with feeding jejunostomy in situ (non-functioning) (Figure 1). Laboratory investigations were within normal limits. Provisional diagnosis of gastric outlet obstruction was made. After resuscitation patient was planned for exploratory laparotomy. On laparotomy, stomach was grossly distended, with kinking at the jejunostomy site (due to tight suturing) leading to closed loop obstruction (Figure 2). Feeding tube was removed

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Figure 1: Preoperative picture showing scar of previous surgery and feeding jejunostomy in situ.

Figure 2: Intraoperative picture showing grossly distended stomach due to kinking at jejunostomy site.

and site was repaired. New feeding jejunostomy was made 10 cm distal to it. Postoperative period was uneventful, feeding was started on second postoperative day and patient was discharged on seventh postoperative day.

DISCUSSION

Jejunostomy is a very simple surgery for providing nutritional support in patients of esophageal stricture till the definitive surgery is done. It can be done by various methods, e.g., Witzel (Longitudinal/Transverse), Stamm, needle catheter, percutaneous endoscopy and laparoscopy [1].

However, various complications [2–7] have been reported with this procedure which can be categorized as

1. Mechanical—tube dislocation, obstruction or migration of tube

2. Infectious—cutaneous or intraabdominal abscess, peritonitis or aspiration pneumonia
3. Gastrointestinal symptoms—nausea, vomiting, diarrhea, constipation, abdominal distension
4. Metabolic—hyperglycemia, hypokalemia, hypophosphatemia, hypomagnesaemia, electrolyte imbalance.

Percutaneous placed or laparoscopic jejunostomy tube is preferred because it is minimally invasive and unnecessary laparotomy is avoided. Success and complication rates of these procedures compare favorably with those of the corresponding open surgical procedure. A rare complication of gastric outlet obstruction secondary to feeding jejunostomy was detected in our institute. Various factors suspected for this complication are

1. Tight closure at entry of jejunostomy catheter.
2. Kinking due to single anchoring suture taken at parietal wall to fix the tube instead of three stitches.
3. Tunnel formation in Witzel technique leading to closed loop obstruction.

Due to obstruction jejunostomy site there was closed loop obstruction in our case (esophageal stricture at other end) leading to gastric outlet obstruction. Since it is first time reported complication so no specific guidelines are available to treat this entity. We have taken the patient for emergency laparotomy and corrected the kinking at the feeding tube site.

Mostly these types of complications are due to faulty surgical technique of feeding jejunostomy and can be prevented by adhering to the basic principles of surgery.

CONCLUSION

Enteral nutrition by feeding jejunostomy is very important part of management of esophageal stricture till the patient is nutritionally fit for surgery. We are reporting a rare complication of gastric outlet obstruction following feeding jejunostomy. Although rare, high index of suspicion is required to diagnose this condition in a patient of feeding jejunostomy in postoperative period. In such case operative intervention is required to correct the underlying pathology.

Author Contributions

Umesh Jethwani – Substantial contributions to conception and design, Acquisition of data, Analysis and interpretation of data, Drafting the article, Revising it critically for important intellectual content, Final approval of the version to be published

Nikhil Bansal – Analysis and interpretation of data, Revising it critically for important intellectual content, Final approval of the version to be published

Guarantor

The corresponding author is the guarantor of submission.

Conflict of Interest

Authors declare no conflict of interest.

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