

# ACUTE MASSIVE GASTRIC DILATATION AFTER FEEDING JEJUNOSTOMY IN ESOPHAGEAL CARCINOMA PATIENT: CASE REPORT

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## ABSTRACT

Acute massive gastric dilatation (AMGD) after feeding jejunostomy procedure is often not missed in differential diagnosis due to very low incidence. Fatal complications can occur due to acute massive dilatation. We presents a very rare case of acute massive gastric dilatation on second post-operative day of open feeding jejunostomy due to unknown pathology. Early diagnosis is essential to avoid catastrophic complications and acute massive gastric dilatation should be kept in mind while doing feeding jejunostomy procedure.

**Keywords:** AMGD, Jejunostomy, SAIO.

## INTRODUCTION

Feeding jejunostomy is the insertion of a tube surgically in the proximal jejunum for enteral nutrition or medications. Bush, a general surgeon was the first to successfully perform a feeding jejunostomy on a patient with inoperable gastric cancer in 1858 [1]. Witzel, a general surgeon invented the most widely used technique for creating jejunostomies in 1891. Delany et al. described a needle catheter technique in 1973 [2].

The primary indication for a jejunostomy is as an additional procedure during major upper digestive tract surgeries, where nutrition can be infused at the jejunum regardless of pathology or surgical procedures of the esophagus, stomach, duodenum, pancreas, liver, and biliary tracts. [3]

Till date, no evidence suggests superiority of different techniques of feeding jejunostomy over one another. Mechanical, infectious, gastrointestinal, and metabolic complications commonly occur after feeding jejunostomy. [4]

Acute massive gastric dilatation after feeding jejunostomy is extremely uncommon and has only been reported once in the literature. We presents a very rare case of acute massive gastric dilatation after open feeding jejunostomy in patient with known case of esophageal carcinoma.

## CASE PRESENTATION

A 35 years old female patient was referred from ENT department with symptoms of absolute dysphagia and weight loss for last 3 months. After workup (CT, Barium Swallow and Biopsy) patient was diagnosed as case of moderately differentiated post cricoid carcinoma with tracheoesophageal fistula and pulmonary metastasis. Nasogastric tube insertion failed even under endoscopic guidance. Patient was referred to general surgery department for feeding jejunostomy. After feeding jejunostomy, the patient started having abdominal pain after every feed through feeding jejunostomy on the second post-operative day.

## INVESTIGATIONS

Plain Xray abdomen was done which showed massive air fluid level in left hypochondrium and multiple small air fluid level in mid abdomen region (Figure 1)

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**Figure 1: Multiple air fluid levels in mid abdomen with massive air fluid level in left hypochondrium**

Ultrasound abdomen was also done which showed multiple fluid filled grossly dilated loops with loss of peristalsis suggestive of intestinal obstruction.

#### **DIFFERENTIAL DIAGNOSIS**

Sub-acute intestinal obstruction (due to Intussusception, Feeding tube misplacement, adhesive obstruction)

#### **TREATMENT**

After proper evaluation re exploration was decided. On re exploration there was massive dilatation of stomach (Figure 2)



**Figure 2: Massively distended stomach (Intraoperative picture)**

After decompression of stomach Tube gastrostomy was performed. Previous feeding jejunostomy tube was in normal position and replaced by new silicon catheter.

#### **OUTCOME AND FOLLOW UP**

Post-operative period was uneventful, and patient was referred to ENT department for management of esophageal carcinoma.

## DISCUSSION

A jejunostomy is a surgical procedure in which tube is placed into the proximal jejunum's lumen to give enteral nutrition. It is frequently performed in patients undergoing major intestinal surgery who are likely to have a difficult post-operative recovery, those who will be fasting for an extended length of time, or those who may need chemotherapy or radiotherapy afterwards [3]. Jejunostomy has been associated with dislodgement, peri jejunostomy leaks, blockages, re-explorations, and even death. In most series, the incidence of gastrointestinal discomfort in the form of distension and diarrhea ranges from 5% to 35%. [6]. Duplay was the first to describe acute massive gastric dilatation (AMGD) in 1833. The exact cause is unknown, but it can occur because of a variety of medical or surgical conditions [5]. The pathophysiology of the disease is precisely not known, but there are theories proposed [7,8]. Morris et al. claimed that anesthesia and debilitation may be predisposing factor as it is a very frequent postoperative complication [9]. Brinton (1859) proposed the atonic theory, which attributed the condition to reflex inhibition of the gastric motor nerves, with the atonic stomach becoming grossly distended as static secretions and swallowed air accumulated. Clinically, more than 90% of patients will have vomiting [5, 10]. In our case, patient was also complaining of vomiting and severe abdominal pain following every feed through jejunostomy tube.

The fluid level may be revealed by a simple X-ray of the abdomen with a significantly enlarged stomach. A computed tomography (CT) scan of the abdomen is the best way to make the diagnosis. It demonstrates the presence of gastric distention. It will also reveal whether there is another mechanical cause for the obstruction [5]. Same findings were noted in our case in plain x ray of patient. CT scan was not done in our case due to increase pulse and low blood pressure. There was generalized tenderness on abdominal examinations. Emergency laparotomy decision was made on these findings.

## CONCLUSION

Acute massive gastric dilatation is a very rare pathology encountered after feeding jejunostomy. Delay in diagnoses may lead to dreadful complications in the form of necrosis

and perforation. Surgeons should be aware of this complication while performing feeding jejunostomy.

## LEARNING POINT

Acute massive gastric dilation if not dealt early may lead to dreadful complications and should be kept in differential diagnosis while suspecting acute abdomen after feeding jejunostomy procedure.

## DECLARATIONS

**Patients consent for use of data for publication:** Proper Informed Consent was taken from the patient.

## Authors contributions

1. Main Manuscript writing, Data Collection.
2. Critical Analysis, Proof Reading
3. Data Collection
4. Proof Reading, Critical Review
5. Data Collection
6. Data Collection

**Conflicts of Interests:** No conflict of interest.

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