

## Case Report

# Gastroduodenal intussusception caused by a prolapsing gastric polyp in a 65 year old lady.

Khan Md. Nazmus Saqeb\*

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### Abstract:

*Gastroduodenal intussusception caused by a gastric polypoid mass is a very rare cause of gastric outlet obstruction. We report a rare case of a 65 year old lady who presented with a 6 months history of postprandial abdominal discomfort with recurrent vomiting and a 5 kg of weight loss during the last 5 months period. After several investigations a tubulovillous adenoma with a long pedicle arising from the gastric wall of upper body was found to be prolapsing into the duodenum through the pylorus producing gastroduodenal intussusception and thus giving rise to features of gastric outlet obstruction. Although gastroduodenal intussusception caused by a gastric polypoid mass is a very rare cause of gastric outlet obstruction, it should be kept in mind as one of the differentials.*

**Key words:** Gastric polyp, Gastroduodenal intussusception, Gastric Outlet Obstruction (GOO).

### Introduction

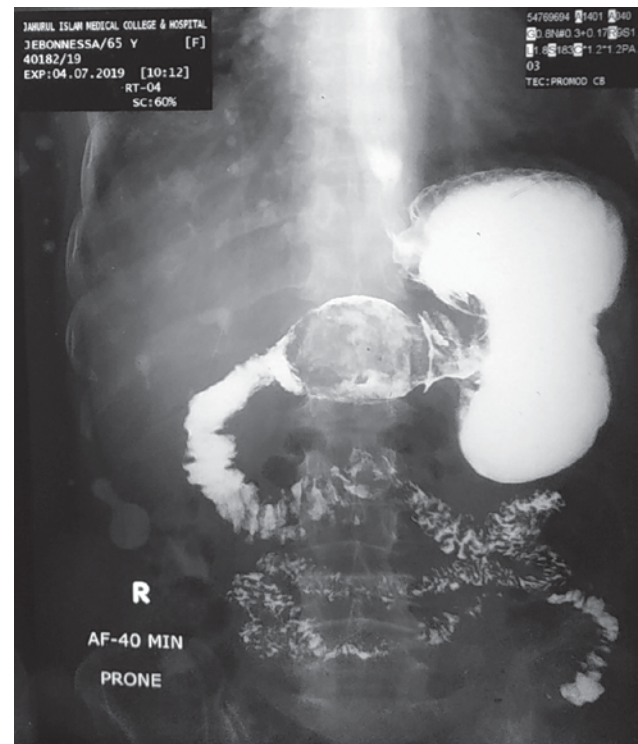
Gastric polyps are usually identified incidentally during 3–5% of upper gastrointestinal endoscopies. Most patients are asymptomatic but infrequently, complications such as bleeding from ulceration or gastric outlet obstruction may occur. Gastroduodenal intussusception caused by a gastric polypoid mass is a very rare cause of gastric outlet obstruction.

### Case history

A 65 year old lady presented with the complaints of postprandial abdominal discomfort and recurrent vomiting for last 6 months, which mostly contained undigested food material. She also complained of losing 5 kg of weight during the last 5 months period. She didn't give any history of hematemesis or melaena. Neither had she any comorbid illness. There was no significant family history or any relevant past medical history. On examination she was anemic. Her vitals were within normal limit. Abdominal examination revealed mild epigastric tenderness, but no definite mass was palpable. There was no organomegaly or ascites either. Other system examinations were unremarkable.

Except for mild anemia and hypokalemia, all other routine hematological and biochemical blood tests including liver enzymes, serum amylase and lipase were within normal limit. USG of whole abdomen revealed a dilated stomach with

abnormal echo pattern near first part of duodenum, suggesting gastric outflow obstruction. Barium meal showing a dilated stomach with a filling defect at the 1<sup>st</sup> part of duodenum suggestive of mass within the duodenum. (Fig 1)

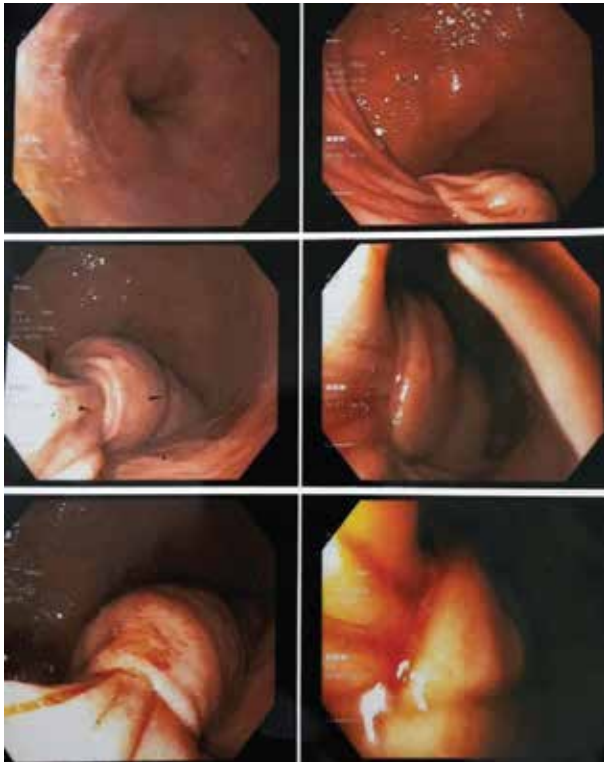


**Fig1**

Endoscopy of upper GIT was done, which revealed a dilated stomach along with a cordlike gastric mucosa arising from upper body and extending into first part of duodenum. (Fig 2)

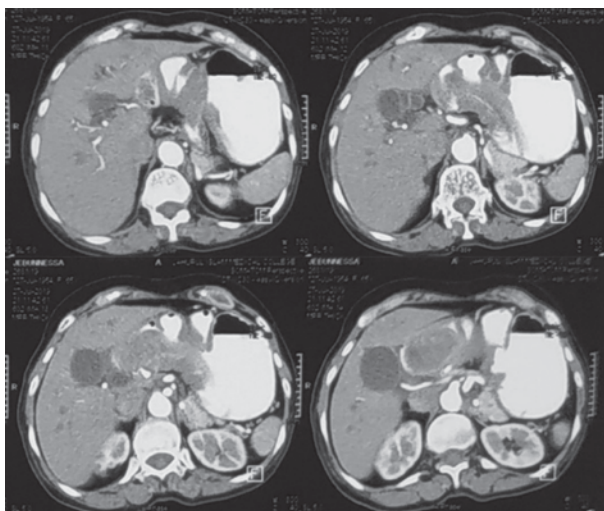
### \*Corresponding Author:

Dr. Khan Md. Nazmus Saqeb  
Assistant Professor  
Dept. of Gastrointestinal, Hepatobiliary & Pancreatic diseases  
Jahurul Islam Medical College & Hospital  
Bajitpur, Kishoreganj, Bangladesh.  
E-mail: [drsaqebk59@gmail.com](mailto:drsaqebk59@gmail.com)  
Phone: +8801715248062  
ORCID ID: <https://orcid.org/0000-0002-8080-947X>



**Fig 2**

Subsequently a contrast enhanced CT scan of whole abdomen was done and it confirmed the presence of a mass in the first part of duodenum along with gastroduodenal intussusception with compression over the head of pancreas and lower common bile duct resulting in upstream dilation of biliary-pancreatic tree. (Fig 3)



**Figure 3:**

The patient was having symptoms and a laparotomy was arranged after correction of the hemoglobin and serum electrolytes. At laparotomy the gastric wall was distorted and the first part of duodenum was distended by a mass. Manipulation of the mass delivered it into the stomach. A simple gastrotomy was then made and it revealed a polypoid

mass with a long pedicle arising from the gastric wall of upper body, which has been prolapsing into duodenum giving rise to features of gastric outlet obstruction. The base of the pedicle was excised, hemostasis was confirmed and the gastrotomy was closed. Post-operative period was uneventful and recovery was smooth. There was no evidence of metastasis.

The patient was discharged 3 days after the operation with an advice to follow up at the outpatient department with the histopathology report. Histopathology revealed a tubulovillous adenoma with moderate dysplasia. The patient experienced a drastic improvement of symptoms after the surgery. She is now absolutely asymptomatic after 6 months of resection with no evidence of recurrence or distant metastases.

### Discussion

Gastric polyps are lesions that project above the mucosal plane into the lumen of the stomach. They are usually uncommon and identified incidentally during 3–5% upper gastrointestinal endoscopies<sup>1</sup>. Fundic gland polyps (80%) and gastric hyperplastic polyps (19%) comprise the majority of all benign gastric polyps, while adenomas and neuroendocrine tumors both comprise <1% of all gastric polyps<sup>2</sup>. Most patients are asymptomatic but infrequently, complications such as bleeding from ulceration or gastric outlet obstruction may occur.

Gastroduodenal intussusception caused by a gastric polypoid mass is a very rare cause of gastric outlet obstruction. Intussusception in adults is a relatively rare condition and accounts for only 1–3% of patients with intestinal obstruction<sup>3</sup>. Gastric intussusceptions are even less prevalent. About 90% of the intussusceptions in adults occur in the small or large bowel, while the remaining 10% involve the stomach or surgically made stomas<sup>4</sup>. They tend to occur secondary to mobile pedunculated lesions, which act as lead points for antegrade prolapse of gastric mucosa. They are usually associated with benign and malignant lesions including smooth muscle tumors, hyperplastic and adenomatous polyps, lipomas, and rarely malignant masses<sup>5</sup>. The symptoms of gastroduodenal intussusception usually are non-specific and may consist of abdominal pain, dyspepsia, nausea, vomiting and vary directly with the ability to reduce the intussusception.

In gastroduodenal intussusception, a pedunculated benign gastric tumor is usually known to become the lead point<sup>6</sup>. Polyps constitute 40% and intramural smooth muscle tumors constitute 40% of the intussusceptums<sup>7</sup>. The reported patient had a large pedunculated polypoid mass projecting from the gastric body through the pylorus and into the duodenum causing gastric outlet obstruction. This led to clinical and radiographic evidence of gastric outlet obstruction.

Gastroduodenal intussusception caused by a prolapsed gastric polyp is rarely documented. Nakagawa et al<sup>8</sup> reported a case of gastroduodenal intussusception secondary to a giant solitary gastric heterotopia which was successfully treated with endoscopic polypectomy. Hobbs and Cohen<sup>9</sup> used the term “ball-valve syndrome” in describing this phenomenon.

Currently, there are no formal guidelines in the literature for the management of large gastric polyps. In a study reviewing 39 cases of gastric polyps leading to gastric outlet obstruction, the median size of polyps removed endoscopically was 3 cm, while the median size of surgically removed polyps was 6 cm<sup>10</sup>. In this case initial consideration for endoscopic excision was made, but this idea was abandoned as the polyp seemed to be too large along with a broad pedicle and moreover the nature & vascularity of the polyp was not known. Laparoscopic gastrotomy for excision of the polyp was also considered but ultimately, a small laparotomy was favored over other approaches.

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