

ACUTE RETROGRADE JEJUNOGASTRIC INTUSSUSCEPTION 20 YEARS AFTER BILROTH II GASTRECTOMY: A CASE REPORT

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SUMMARY

A 50-year-old male had an acute jejunogastric intussusception complicating a Bilroth II gastrectomy done 20 years previously for peptic ulcer. Preoperatively, the diagnosis was suspected from the plain abdominal radiograph which was subsequently confirmed by barium meal. The patient had an uneventful recovery following resection of the intussuscepted segment and an end-to-end anastomosis. Although rare, the condition is serious and should be recognised promptly and treated surgically. The diagnosis should always be considered in a patient who has had a previous gastrojejunostomy presented with a sudden onset of epigastric pain, bloody vomitus and epigastric mass.

INTRODUCTION

Acute retrograde jejunogastric intussusception is a serious complication of gastrojejunostomy unless recognised promptly and treated surgically.¹ Its rarity and the non-specific clinical presentations such as epigastric pain, nausea, vomiting and epigastric tenderness account for the low index of suspicion in asymptomatic postgastric surgery patients.

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CASE HISTORY

A 50-year-old male was admitted to the surgical ward on the evening of 13 October 1986, with complaints of vomiting blood-stained and coffee-ground fluid for two days, associated with a sudden colicky central abdominal pain and absolute constipation. He had a previous history of gastric operation 20 years ago for peptic ulcer and was asymptomatic since then.

On admission, he was dehydrated with pulse rate of 80/min, blood pressure of 110/70 mm Hg, and temperature of 37°C. The heart and lung were clinically normal. There was a midline scar on the abdomen with epigastric guarding and tenderness. On the next day, a definite round mass of 7 cm diameter, firm, smooth surface, non-tender was palpated in the epigastrium.

Gastroscopy was carried out two days later and showed blood clots and coffee ground fluid in the stomach; a growth was suspected beneath the blood clots. A plain abdominal radiograph showed a suggestion of jejunogastric intussusception (Fig. 1). Barium meal done subsequently showed a Bilroth II gastrectomy, and a mass within the lumen of the gastric remnant with linear filling defects like that of intestinal folds. A radiological diagnosis of gastrojejunogastric intussusception was made (Fig. 2).

Immediate surgery was performed which confirmed the radiological diagnosis (Fig. 3). The intussuscepted segment was resected with end to end anastomosis.

Postoperative recovery was uneventful. The patient was discharged well 11 days after admission.

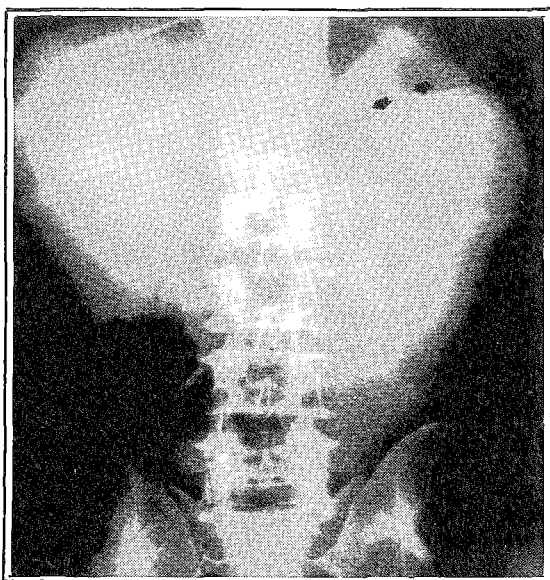


Fig. 1 Plain abdominal radiograph showing a lobulated soft tissue mass (arrow-heads) within a gas-filled stomach.

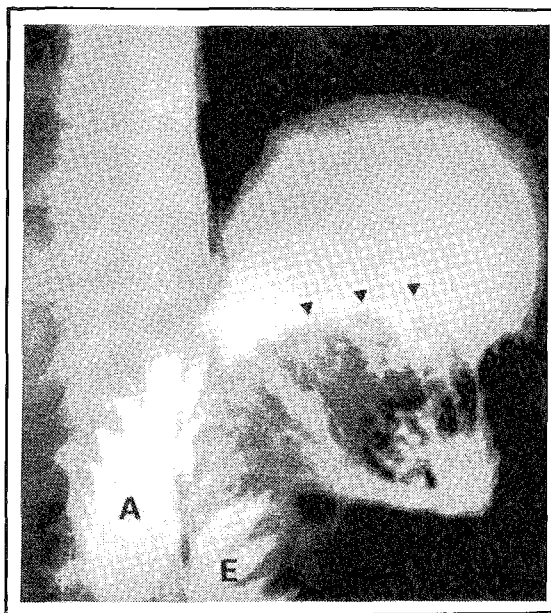


Fig. 2 Barium meal showing a Bilioth II gastrectomy. There is a mass extending from the efferent loop (B) to the gastric lumen. Linear filling defects consistent with mucosal folds shown. (A) afferent loop.

DISCUSSION

There are three types of jejuno gastric intussusception following gastrojejunostomy: in type 1, the afferent loop intussuscepts into the stomach; in type 2, the efferent loop intussuscepts, while in type 3, both the afferent and the efferent loops invaginate. Type 2 is the commonest type comprising about 74% of cases. Both types 1 and 2 initially form as jejunojejunal intussusception which in turn intussuscepts into the gastric lumen. The complication usually occurs late, developing on an average of six years after gastric surgery. However, it has been reported to occur as early as the fourth post-operative day to as long as 30 years following gastric surgery.²

The cause of the condition remains unknown. This complication has followed every gastric anastomosis except Bilioth 1 procedure. Whether the gastroenterostomy was antecolic or retrocolic, isoperistaltic or anti peristaltic or associated with entero-enterostomy has not influenced the incidence. There has rarely been a definite anatomic or pathologic causes such as ulcer, tumour or polyp to initiate the invagination. Various mechanical factors such as adhesions, an unduly long afferent loop or excessively mobile efferent loop have been suggested as possible predisposing factors but none have occurred consistently. Such dynamic or functional factors as acid irritation and segmental jejunal spasm have also been mentioned as initiating causes; however these are difficult to prove.²

There are two types of clinical syndromes, namely an acute fulminating episode and a chronic intermittent partial stomal obstruction. In the acute form, patients usually present with a sudden onset of upper abdominal pain followed by vomiting. The vomitus which is initially clear may later become blood-stained or has a coffee ground appearance. This condition develops as the intussusception progresses to strangulation. Epigastric mass is palpable in about one third of cases.² With recurrent symptoms, there is vague recurrent epigastric discomfort or pain, frequently precipitated or exacerbated by ingestion of food.

Characteristically, the patient feels better when the stomach is empty. The episode is usually accompanied by nausea and vomiting.

The differential diagnosis of both acute and chronic retrograde jejuno gastric intussusceptions include peptic ulcer with haemorrhage or peritonitis, high intestinal obstruction due to adhesions or tumour, disease of the biliary tract and acute pancreatitis.¹ The diagnosis should always be considered in a patient who has undergone a previous gastrojejunostomy and subtotal gastrectomy and who has symptoms of sudden severe epigastric pain, repeated bloody vomitus and palpable epigastric mass and or tenderness.¹

Preoperative definitive diagnosis can be made endoscopically or radiologically. Endoscopy allows direct visualisation of the intussusceptum within the gastric lumen. But difficulties may be encountered when there is a lot of blood within the stomach as was the case with our patient. Plain abdominal radiograph may provide a clue to the diagnosis, by showing a soft tissue mass within an air-filled gastric lumen. Contrast studies with either barium or Gastrografin will provide a definitive diagnosis. The demonstration of a filling defect within the stomach with curved lines simulating intestinal folds in a patient with a previous gastrojejunostomy is pathognomonic of retrograde jejuno gastric intussusception.²

The operative mortality rate in the acute form increases with the time interval between the onset of symptoms and the surgical treatment. There is a 10% mortality in the first 48 hours and increasing to 50% during the second 48 hours.³ These figures stress the importance of early diagnosis and operative intervention. At operation, reduction of the intussusception is the most expedient form of treatment, especially in a critically ill patient. There have been instances of recurrence following a simple reduction. Resection becomes necessary in the presence of non-viable intestine or an irreducible intussusception. The type of resection depends on the type of preceding gastric surgery. If gastric resection preceded the intussusception, resection of the anastomosis and reestablishment of gastrointestinal continuity with a Bilroth II type is generally accepted as the best form of definitive surgery.³

REFERENCES

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