

Antegrade Jejunogastric Intussusception after Gastrojejunostomy

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Abstract

Postoperative intussusception is an unusual clinical entity in adults, and is rarely encountered as a complication following gastric surgery. The reported incidence is under 0.1% in patients who undergo gastric surgery. It has potentially very serious complications. Early diagnosis and surgical treatment is very important to avoid mortality. We report a case of antegrade jejuno gastric intussusception after subtotal gastrectomy and review of the literature on this complication.

Introduction

Jejunogastric intussusception (JGI) is a rare complication of gastrojejunostomy operations [1]. Retrograde JGI is the most common type. An important role for CT is to define the type of intussusception and assess the viability of the invaginated bowel loop.

Case Report

Our patient is a 54 year -old man who had gastrojejunostomy 10 years ago. He presented to emergency service with abdominal pain, vomiting and hematemesis. His white blood cell was 16.05 K/uL, blood urea nitrogen was 22.4 mg/dl, creatinin was 2.2 mg/dl. The patient was dehydrated; laboratory investigation showed increased blood leucocyte, urea and creatinin levels. On Gastrography examination, there was filling defects due to intussuscepted jejunal loops in the distended stomach lumen. Contrast was passing to duodenal C loop but not to



Figure 1: Contrast is passing to duodenal C loop (arrow) but not to jejunum.

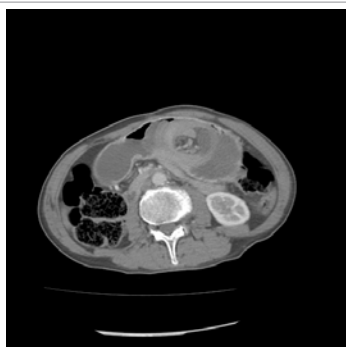


Figure 2: CT discloses a target shaped mass (arrows) compatible with Jejunal loops in the stomach.

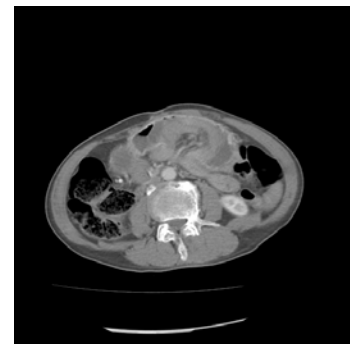


Figure 3: Mesentery and mesenteric vessels (arrows) along the intussuscepted loops.

jejunum (Figure 1). Computed Tomography disclosed a target shaped mass compatible with Jejunal loops in the stomach (Figure 2). Also mesentery and mesenteric vessels were seen along the intussuscepted loops (Figure 3). In the operation, at the site of gastrojejunostomy, the intussusception of the afferent loop into the stomach was seen. The affected loop was viable. The patient underwent an urgent laparotomy with the diagnosis of acute abdomen and because his severe general condition instead of resection intussusception was reduced.

Discussion

JGI was first described by Bozzi [2] in a patient with gastrojejunostomy. The incidence of JGI has been estimated to be 3 in 2,000 gastrojejunostomies (0.15%) [3]. Three anatomic types of JGI have been described [4]: type I contains the afferent loop, type II contains the efferent loop, and type III represents a combined form. Type II JGI is said to be the most common type accounting for 80% of all JGIs while Type I and Type III contribute to 10% each [5]. Type 1

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Received December 05, 2011; **Accepted** December 19, 2011; **Published** December 28, 2011

Citation: Yücel K, Atahan K, Oyar O, Uluç E (2012) Antegrade Jejunogastric Intussusception after Gastrojejunostomy. J Clinic Case Reports 2:105. doi:10.4172/2165-7920.1000105

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corresponds to the form of intussusception identified in our case. An upper gastrointestinal (UGI) endoscopy allows direct visualization of the anastomosis or an intraluminal mass. Upper abdominal series also confirms the diagnosis showing a “coil spring” (helical) filling defect in the stomach produced by barium between the edematous folds of Kerckring (valvulae conniventes) and surrounding the intussusceptum [3]. Ultrasound (US) of the upper abdomen can be useful in the diagnosis of JGI: this method may show the presence of a big air bubble and a dilated small intestine loop in the gastric lumen [6]. Computerized tomography (CT) of the abdomen is a more sensitive and more specific method than radiographic and US diagnostics. At CT, the classical target (bull’s eye) appearance of the jejunogastric intussusception can be seen [7]. This appearance consists of the intussusceptum (inner part-jejunum in our case) and the intussusciptence (outer layers-stomach in our case).

Conclusion

In conclusion, although JGI is rare, acute presentation of this condition is a surgical emergency. The diagnosis of JGI should be considered in all patients with a history of previous upper

gastrointestinal operation presenting with otherwise unexplained severe abdominal pain, vomiting, or hematemesis.

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