Acta Scientific Clinical Case Reports

Volume 1 Issue 11 December 2020

Case Report

Jejuno-Jejunal Intussusception after Roux-En-Y Gastric Bypass - Case Report and Review of Literature

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Received: November 13, 2020

Published: November 27, 2020

Abstract

Jejuno-jejunal intussusception after Roux-en-Y gastric bypass (RYGB) is an uncommon complication. Most practitioners consider dysmotility to be the causative mechanism in the absence of obvious etiology.

The data in the literature reveals occurs between the first and the third year post-operatively.

We present the case of a young patient, that presented with a retrograde intussusception, necessitating jejuno-jejunal resection, ten years after a laparoscopic RYGB.

The diagnosis and etiological theories are discussed based on findings from literature.

Keywords: Jejuno-Jejunal Intussusception; Roux-En-Y Gastric Bypass (RYGB)

Introduction

Jejuno-jejunal Intussusception following a Roux-en-Y gastrojejunostomy was first described by Agha in 1986 [1].

Following gastric bypass surgery, this complication has a reported incidence of 0.1 - 0.3% [2-6]. Real incidence is likely to be much higher and expected to rise in the next few years because of the increasing number of gastric bypass surgeries. An increased number of publications about this post-operative complication will contribute to raising the awareness. Early detection of this complication is now possible due to better imaging modalities. Abdominal CT scan is the radiological exam of choice and is often performed in order to obtain preoperative confirmation of the diagnosis. The typical radiological image on the CT scan is represented by the classic "target sign" [7,8].

Case Report

We report a case of a 30-year-old female patient, that presented to the Emergency Department with abdominal pain, nausea, vomiting and anorexia.

The medical history of revealed a RYGB at the age of 20 with an 80 kg weight loss recorded.-

The clinical exam revealed diffuse abdominal pain and tachycardia.

The laboratory exam was normal.

The abdominal CT scan revealed an image compatible with a jejuno-jejunal invagination.

We performed an exploratory laparoscopy in emergency. Perioperatively we found a small quantity of free white liquid in the abdominal cavity. We explored the entire length of the small bowel from distal to proximal part. At 15 cm distally from the jejuno-jejunal anastomosis, we observed a retrograde intussuscepted jejunal segment, with no signs of intestinal perforation. Since it was not possible to reduce the invagination using blunt manual techniques, a mini laparotomy was performed. The common limb is invaginated in bilio-pancreatic limb. After the reduction of the invaginated segment was completed, we observed a devascularization of the jejuno-jenunal anastomosis.

The anastomosis was resected, and a new anastomosis was constructed. The patient was discharged at the 3rd postoperative day, after progressive oral re-alimentation and intestinal transit recovery.

Discussion and Conclusion

Laparoscopic Roux-in Y gastric bypass (LRYGB) is currently one of most popular surgical options to treat morbid obesity. Retrograde intussusception in the jejuno-jejunal anastomosis after a bariatric surgery occurs in 0.1 - 0.3% of the cases [8] and within the post-LRYGB, obstruction of the small bowel, intestinal intussusception represents between 1 and 5% [9].

The diagnosis of intussusception in adults is relatively rare; however, there is an increase of the reports in literature. At present, the etiology is not very well understood, and most believe that dysmotility due to the development of ectopic pacemaker plays a crucial role in creating an unstable zone that predisposes to telescoping of the bowel.

Further, the thinning of mesentery due to excessive weight loss decreases the "cushion effect" and potentially augments the unstable zone.

The diagnosis is often difficult, mainly because the initial physical examination and laboratory investigations are nonspecific. Plain X-rays and ultrasound are generally non. It is essential to complement initial examination with abdominal CT scan which is a reliable radiological investigation and early surgical intervention is recommended, as laparoscopy is also, in doubt, a diagnosis tool.

Although detection and treatment of intussusception following gastric bypass surgery are now much improved, its etiology appears rather complex and remains somewhat unclear. It is still considered that intussusception is related to dysmotility, which can develop secondary to the apparition of ectopic intestinal pacemakers. Other proposed mechanisms include development of new lead points such as sutures or staple lines and focal nodal hyperplasia, but in most cases no identifiable lead points or anatomic aberrations are detected [7,9].

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