Internal Hernia in Third-Trimester Pregnancy after Roux-en-Y Gastric Bypass: a Case Report

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Introduction

Bariatric surgery gained popularity during the last two decades due to a proven sustainable weight loss even in morbid obese patients. Subsequently, there are rising numbers of pregnant women with prior bariatric surgery who may experience complications during pregnancy. Internal hernia is a dreaded recognized complication of Roux-en-Y gastric bypass (RNYGB), variable incidences of 0-15% have been reported (1).

Case Presentation

A 31-year-old Gravida III, Para II was referred to our hospital at 32 4/7 weeks of gestation with crampy abdominal pain in the upper quadrants. Her medical history revealed laparoscopic insertion of a gastric band and RNYGB 10 years ago. Afterwards the patient achieved a weight loss of 40 kilogram.

Investigations

Initial hemodynamic and respiratory parameters were normal, even though abdominal pain persisted and increased slightly. Sonographically, no free fluid in Morison’s pouch or Douglas cavity, no maternal hydronephrosis and no biliary disorders. Fetal heart rate pattern was reassuring and fetal biometry appropriate. Contractions were not visible on tocogram and cervical length measured 31 mm. Laboratory investigations in our clinic confirmed normal white and red blood cell count, platelets, lactate, C-reactive protein, liver and pancreatic enzymes. After multidisciplinary clinical assessment, we decided to run a computed tomography.

We performed an explorative laparotomy. After opening the abdominal cavity, 1.4 liters chyle with typical whitish appearance were drained. The entire small bowel showed a livid discoloration with a congestive edema. At least 80% of the small bowel had been herniated through the Petersen’s space and were incarcerated (Figure 2). Additionally, another small bowel loop was entrapped in an additional connecting tube from the subcutaneous access port to the gastric band (Figure 3). Thus, diagnosis of incarcerated internal hernia was confirmed. After reposition of both hernias, the patient became hemodynamically unstable. Based on persistence, an emergency cesarean section via caudal extension of the laparotomy was performed. A depressed newborn was delivered and treated by the neonatologists. Small bowel fully recovered in terms of the circulation. Therefore the operation was completed by closing the mesenteric defects (Petersen Space, J-J-Space) with non-absorbable sutures, release of the entrapped small bowel, and fixation of the connecting tube in the left abdomen at the parietal peritoneum.

With increasing numbers of bariatric surgery procedures being performed, it is necessary to be aware of unspecific symptoms in pregnant women with a history of RNYGB. They require special attention and prompt treatment. Rapid intervention may be mandatory to avoid permanent damage to the intestines.

Case Report

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Figure 1: Computed tomography with indirect signs for an internal hernia (congestive edema - marked with arrow)

Figure 2: ischemia of the small bowel with congestive edema

Figure 3: part of the gastric band and the entrapped small bowel

Conclusion

With increasing numbers of bariatric surgery procedures being performed, it is necessary to be aware of unspecific symptoms in pregnant women with a history of RNYGB. They require special attention and prompt treatment. Rapid intervention may be mandatory to avoid permanent damage to the intestines.

Literature