The authors reported a case of small bowel obstruction secondary to internal herniation through a defect of the broad ligament. This is a rare cause of small bowel obstruction, but as this case report shows, it is important to remember in women without previous abdominal surgery presenting with symptoms of small bowel obstruction.

Key words: internal herniation, small bowel obstruction, ileus, laparoscopy, broad ligament, acute abdomen

In the study authors reported a case of small bowel obstruction secondary to internal herniation through a defect of the broad ligament. This is a rare cause of small bowel obstruction (1, 2, 3), but as this case report shows, it is important to remember in women without previous abdominal surgery presenting with signs of small bowel obstruction.

CASE REPORT

A 42-year old woman presented to the emergency department with suddenly debuted constant epigastric pain. She was gravida 3, para 2 with a medical history of two natural labors and one prior surgical abortion and was otherwise healthy.

Physical examination, laboratory tests and ultrasound scanning were normal (apart from slight direct tenderness in the epigastrium).

Eight hours after the debut, the pain changed in character to colicky right inguinal pain and was now associated with nausea and vomiting.

Objectively, the abdomen was still soft and flat, but now with tenderness in the right side. Traces of blood were detected in the urine, and nephrolithiasis was suspected. The patient was treated symptomatically and discharged 3 hours later.

The next day the patient was readmitted to the hospital, due to of increasing nausea and vomiting. There had been two defecations of loose stools. Physical examination was normal. Blood investigation showed an elevated white blood cells count of 14.8x10^9/L,
but was otherwise normal. The symptoms were interpreted as gastroenteritis and the patient was discharged as she felt an improvement.

The next day, the patient was admitted again. A computed tomography scan (CT-scan) without intravenous contrast was performed to exclude nephrolithiasis. This showed dilated bowels but no nephrolithiasis. The physical examination was still normal.

The patient was observed overnight and the symptoms gradually worsened. The patient had no defecation or flatus for 2 days and her abdomen was now mildly distended with diffuse pain on palpation. Small bowel obstruction was suspected and a new CT-scan of the abdomen with intravenous contrast was performed. It showed small bowel obstruction.

An acute laparoscopy showed internal herniation of a loop of small bowel trapped in a 2 cm defect in the right side of the broad ligament. The strangulated part of the bowel was dilated and bluish discoloured while the non-trapped part was healthy. The defect was gently expanded bluntly and it was then possible to retract the strangulated part of the small bowel. The defect was then sutured laparoscopically. Then the entire small bowel was inspected and it was vital.

The postoperative recovery was uneventful and the patient was discharged 3 days later.

DISCUSSION

In this case there was a delay (rather long delet) in making the diagnosis due to the rather unspecific and changing symptoms at the time of presentation in addition to the fact that the patient was 42 years old and without previous abdominal surgery.

Preoperative diagnosis of internal hernia due to a defect of the broad ligament is known to be difficult because of the absence of typical signs and symptoms (1, 2, 4). This makes a high index of suspicion necessary. The typical patient with broad ligament hernia is a middle-aged woman who has been pregnant and has no history of abdominal surgery (4).

Computed tomography is useful in identifying small bowel obstruction and can make a preoperative diagnosis of an internal hernia, but identifying a broad ligament defect is difficult (3, 5).

Defects in the broad ligament can be either acquired or congenital (1, 6). Acquired defects can be caused by A) pregnancy and delivery traumas, B) operative traumas, C) endometriosis and D) previous pelvic inflammatory disease (PID). The congenital defects are rare and suspected to be caused by rupture of cystic structures that are remnants of the mesonephric or Müllerian ducts (1, 6). In our case the patient has had two pregnancies with natural deliveries and a previous surgical abortion which makes an acquired defect most likely. In fact 80% of all women with internal herniation through the broad ligament are multiparous (1).

CONCLUSIONS

In the recent years several cases of laparoscopic treatment of herniation through a defect in the broad ligament has been presented (1, 7-11). As our case also demonstrated laparoscopic treatment is both simple and less traumatic than laparotomy.

This case report shows that a high index of suspicion of herniation through broad ligament is necessary to prevent diagnostic delay.

Internal herniation through a defect in the broad ligament should be considered as a differential diagnosis in female patients presenting with symptoms of small bowel obstruction without a history of prior abdominal surgery, especially in parous women. It is recommend to close a defect of the broad ligament discovered incidentally during surgery to prevent future herniation (6).

REFERENCES


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