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Master Allen Syndrome a Case Report

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Abstract We report a case of 40-year-old Caucasian woman gravida 3, para 2, with severe acute abdominal pain, bilious vomiting, closed bowel feces and gas for the last 24 hours. Plain abdominal radiographs showed multiple loops of dilated small bowel with air fluid levels. The patient underwent an exploratory laparotomy, which revealed two defects of the left broad ligament. A 160-cm length of the ileum had been herniated into the outer defect. As a gangrenous change was recognized in the incarcerated bowel, it was resected and an end-to-end anastomosis was performed, while the defects of the broad ligament were also closed. The postoperative course was uneventful. Six months after surgery, the patient does not report dysmenorrhea and dyspareunia, also she has a few symptoms of short bowel.

Keywords: *pain, broad ligament, abdominal herniation, anastomosis, bowel obstruction, incarcerated hernia, bowel resection, dysmenorrhea, dyspareunia*

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1. Introduction

Intestinal obstruction is a mechanical or functional obstruction of the intestines, preventing the normal transit of the products of digestion. It can occur at any level distal to the duodenum of the small intestine and it is a surgical emergency. Abdominal hernias are a cause of mechanical obstruction.

Abdominal herniation is a protrusion of part of its content from the abdominal cavity through a normal or abnormal aperture or from wall weakness [1].

We can distinguish three main types of hernias: external, diaphragmatic and internal. In external abdominal herniation the protrusion occurs through an opening of the abdominal wall [1], while internal herniations happen across mesenteric or peritoneal apertures. Finally, diaphragmatic herniation involves a weakness of the diaphragm.

Internal hernias are a very inusual cause of mechanical obstruction, accounting for less than 1% of cases (representing 0.2–2% of all hernias) and only 0.5–4.1% of all small bowel incarcerations The most common internal hernias are paraduodenal and protrude through the foramen of Winslow. Hernias through a defect in the broad ligament represent only 4–7% [2,3,4].

We report a case of bowel obstruction due to an incarcerated hernia through broad ligament defect, treated by bowel resection.

2. Case Report

In May 2012 a 40-year-old Caucasian woman gravida 3, para 2, was admitted to the Emergency obstetric of Santo Bambino Hospital for severe acute abdominal pain, bilious vomiting, closed bowel feces and gas for the last 24 hours.

She underwent to uterine curettage a miscarriage 2 days before. The woman was at 10th week of pregnancy. Past medical history was significant for dysmenorrheal, chronic pelvic pain and dyspareunia for about 10 years.

Moreover she underwent laparoscopy (2001) for ovarian endometriosis. and resection of endometrial implants 20 mm from back page of broad ligaments.

The patient was afebrile and her vital signs were within normal limits. Clinical examination showed a treatable abdomen, without peritoneal signs.

Her weight was 63 Kg, height was 180 cm and body mass index was 19,4 Kg/m^2.

The gynecological examination was not possible because of the presence of an elastic mass in the hypogastric region.

The ultrasound showed normal endometrium (thickness of 7 mm) and ovaries. No free fluid in Douglas. But a widespread bloating and hyperperistalsis.

Basic laboratory investigations showed elevated leukocyte count (23 800/mm^3) and indices of inflammation (VES: 29 mm/h; PCR: 31.3 mg/dL).

Plain abdominal radiographs showed multiple loops of dilated small bowel with air fluid levels.

Thus, 5 hours after hospital admission, with a diagnosis of intestinal obstruction from unknown origin, the patient was taken to the operating room. The patient underwent an exploratory laparotomy, which revealed two defects of the left broad ligament. A 160-cm length of the ileum had been herniated into the outer defect. Figure 1, Figure 2, Figure 3. As a gangrenous change was recognized in the incarcerated bowel, it was resected and an end-to-end anastomosis was performed,

while the defects of the broad ligament were also closed. The postoperative course was uneventful.

Six months after surgery, the patient does not report dysmenorrhea and dyspareunia, also she has a few symptoms of short bowel.

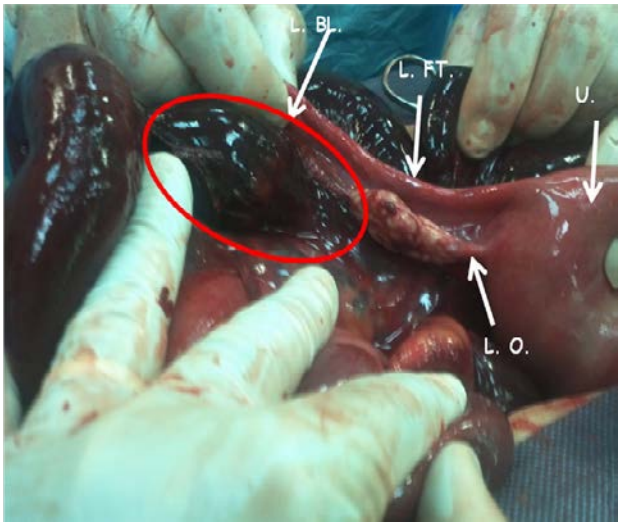

Figure 1. L. BL.: leftbroad ligament; L. FT.: left fallopian tube; U. : uterus; L. O.: left ovaries

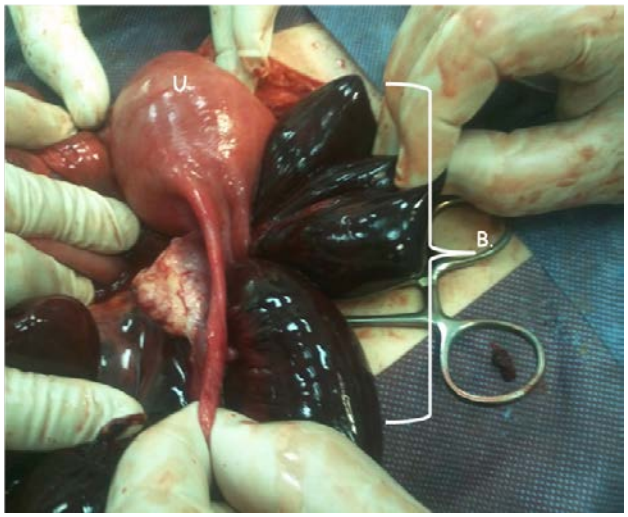

Figure 2. uterus; B.: bowel.

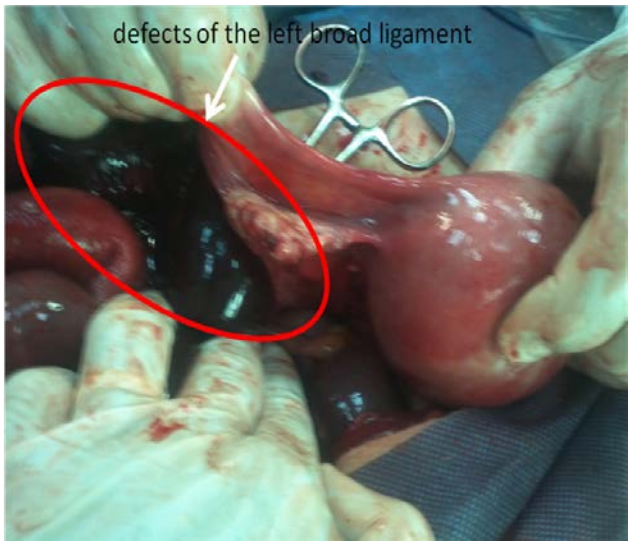

Figure 3. defect of the left broad ligament and incarcerated hernia

3. Discussion

The gynecological symptoms reported by patient (dysmenorrheal, chronic pelvic pain and dyspareunia for about 10 years) are related to endometriosis but also to master allen syndrome, with subsequent complication of internal hernia.

Allen and Masters in their classic 1955 article [5] defined traumatic laceration of uterine support as a syndrome characterized by laceration in the posterior leaf of broad ligament along with abnormally mobile cervix, which consists of four typical factors:

1. An etiological factor: the onset of their symptoms related with traumatic delivery or puerperal pathology.
2. Typical symptomatology: dyspareunia, excessive fatigue, dysmenorrhea, deep pelvic pain and emotional instability.
3. Typical findings on pelvic examination: hyperretroflected tender uterus and an excessively mobile cervix, the “universal joint cervix”.
4. Anatomy: uni- or bilateral tears of the posterior aspect of the broad ligament were discovered on laparotomy.

Women suffering from what has been termed the “Allen Masters Syndrome” often go undiagnosed from doctor to doctor for long periods of time. Their symptoms are usually interpreted as psychosomatic and the “emotional instability” is frequently considered to be the cause rather than the result of sometimes incapacitating chronic pain and the expression of frustration resulting from the inability to have normal sexual relationship [6].

Internal hernias originating in broad ligament defects are very rare, comprising 4% to 7% of all internal hernias. The first reported case was in 1861 by Quain [7], the finding appearing during an autopsy.12 According to Hunt,9 internal hernias of the broad ligament may be classified as 2 types: the fenestra type that implies complete fenestration by means of a broad ligament defect, and the pouch type, in which herniation occurs toward the broad ligament from an anterior or posterior opening.

Defects within the broad ligament can be either congenital (ruptured cystic structures reminiscent of the mesonephric or mullerian ducts) or secondary to operative trauma, pregnancy and birth trauma, or prior pelvic inflammatory disease [8].

Cilley classified broad ligament defects in three categories based on the location of the defect defines Type I defects as those that occur throughout the entire broad band ligament; Type II defects as those that occur through the mesosalpinx and mesovarium; and Type III defects as those that occur through the mesoligamentum teres. [9,10,11].

The herniation of the intestinal loops through a defect of the broad ligament requires immediate diagnosis and surgical treatment of an emergency, because the diagnostic delay is associated with a mortality rate of 40%, as reported in the literature. The surgical treatment consists in the reduction, or in the resection if necessary, intestinal hernia and the closure of the tear so that the event is not repeated. Some authors demonstrate that only resection of the hernia and closing the pouch of Douglas may be a suitable treatment.

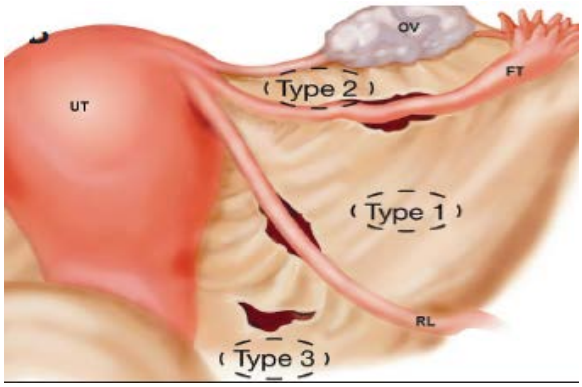

Figure 4. Classification of broad ligament defects [9]

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