Case Report ISSN 2835-6276

American Journal of Medical and Clinical Research & Reviews

Obturator hernia with strangulation

EL BAKOURI ABDELILAH, HAJJAJI REDA, MOUNTASSIR MAROUANE, MAJD ABDESSAMAD, KAMAL KHADIJA, BOUALI MOUNIR, BENSARDI FATIMZAHRA, EL HATTABI KHALID, FADIL ABDELAZIZ

Department of general surgery, IBN ROCHD University hospital of Casablanca, Casablanca, Morocco

*Correspondence: Marouane Mountassir

Received: 30 Sep 2024; Accepted: 30 Oct 2024; Published: 07 Nov 2024

Citation: Marouane Mountassir. Obturator hernia with strangulation. AJMCRR. 2024; 3(11): 1-4.

Abstract

Obturator hernias (OH) are rare, causing 0.2 to 1.6 mechanical obstructions in the small intestine, with postoperative mortality and morbidity of 35% and 18%, respectively.

We report a case of a patient diagnosed with a strangulated OH during the evaluation of obstruction.

OH is difficult to diagnose preoperatively due to its low clinical specificity. Computed tomography examination appears to be a significant aid in etiological diagnosis. However, once the diagnosis of obstruction is established, emergency intervention can reveal the etiology and propose treatment. Delayed treatment increases mortality and morbidity.

Introduction :

Obturator hernia is defined as the protrusion of abdominal contents through the obturator canal [1, 2]. It is a rare condition, representing 0.05 to 1.4% of all operated hernias and 0.2 to 1.6% of obstructions [2]. The purpose of this study was to examine the clinical, therapeutic, and diagnostic aspects of this rare type of hernia.

Patient and Observation :

A 90-year-old female, cholecystectomized 20 years ago by right subcostal approach, presented with a history of illness dating back 7 days before admission, characterized by the onset of an occlusive syndrome with cessation of stool and gas accompanied by bilious vomiting and generalized abdominal pain without externalized gastrointestinal bleeding, all evolving in a context of afebrile state and altered general condition. On admission, the patient was conscious, blood pressure: 90/60 mmHg, heart rate: 102 beats/min, respiratory rate: 21 cycles/min, temperature: 37.3°C, with pale conjunctivae.

Abdominal examination on admission revealed a scar in the right subcostal region, generalized abdominal tenderness with free hernial orifices. Rectal examination showed a healthy anal margin,

good sphincter tone, no palpable mass, empty rectal ampulla; the rest of the physical examination was unremarkable.

Abdominal computed tomography showed distension of the ileal loops with a transitional zone (collapsed loops) in the left iliac fossa: strangulated obturator hernia **(Figure 1).** The patient underwent emergency laparotomy, revealing a strangulated left obturator hernia with lateral pinching responsible for the caliber discrepancy **(Figure 2 A, B, C)**. Gentle reduction of the viable incarcerated bowel and closure of the obturator orifice by plication of the parietal peritoneum were performed. The patient's condition worsened, leading to multiorgan failure and death.

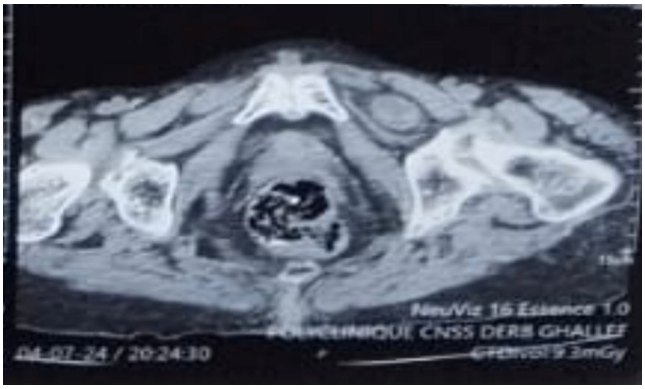

Figure 1: Abdominal computed tomography, axial section showing a left obturator hernia (*)

Figure 2-A: Lateral pinching of the incarcerated (suffering) loop.

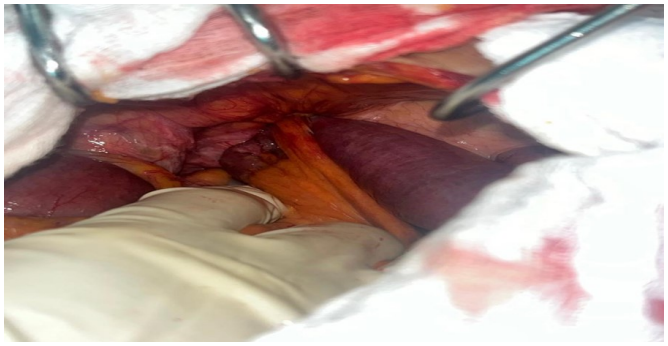

Figure 2-B: Incarcerated loop in the obturator orifice with caliber disparity.

Figure 2-C : : The loop after resuscitation

Discussion :

The pathology of strangulated obturator hernia is uncommon [3,4]. The first case was observed in 1718 (Lemaire, Strasbourg). It is increasingly prevalent due to population aging [5]. In women, obturator hernia is six times more common than in men [5,6]. Advanced age (from 70 years onwards), female sex, weight loss, and the occurrence of pelvic floor laxity related to multiparity are the most frequently associated factors with the development of strangulated obturator hernia [6]. Generally, obturator hernia is latent until its rupture and presents as an acute obstructive syndrome, sometimes preceded by episodes of spontaneously reduced strangulation in 23.5% [6].

The rate of sub-occlusive episodes in the literature varies from 11.8 to 34.7% [4,6], as observed in our patient. Most frequently, obturator hernia is located

on the right side, and in 6% of cases, it is bilateral.

The best clinical argument is the Romberg-Howship sign. The frequency varies between 15 and 50 cases [3,7]. It involves pain related to the compression of the obturator nerve by the hernia sac, notably its cutaneous branches. It is exacerbated by abduction and internal rotation of the foot and is known to be characteristic of an obturator hernia. It is noteworthy that this sign was not observed in our patient. Given the rarity of this pathology and the fact that it is not routinely sought during the examination of patients presenting with acute intestinal obstruction.

Various tests are used to diagnose obturator hernia. Computed tomography is currently the examination of choice [6,7]. The absence of an obvious cause of acute intestinal obstruction of the small intestine should lead to early abdominal computed tomography rather than a conservative approach, especially in elderly patients with the aforementioned risk factors. This test is currently the most reliable method for diagnosing strangulated obturator hernia and requires a certain level of experience from the radiologist. This test helps to shorten the diagnostic window before the onset of intestinal necrosis or peritonitis, leading to high mortality and morbidity [7].

The treatment of strangulated obturator hernia is surgical. Different approaches are possible, differing both in procedures and repair techniques. Emergency laparotomy is the fastest and safest approach. If obstruction is complicated by intestinal necrosis and examinations confirm the diagnosis, intestinal resection is facilitated [2, 3, 7]. If the diagnosis is made preoperatively, the pre-peritoneal approach is most appropriate as it allows bilateral access to the femoral, inguinal, and closure sites.

In the case of small bowel obstruction, laparoscopy, in addition to its therapeutic function, is also a diagnostic tool that can reveal the organic nature and etiology of the obstruction [7]. Although this technique has been reported, experience in the treatment of obturator hernias is currently too limited to recommend it as a routine procedure. Surgical treatment involves gentle reduction without pulling on the strip, which can easily become obstructed and break. If the intestine becomes necrotic after reduction, inexpensive resection is necessary. Defects can be repaired by simple sutures or by the insertion of prosthetic materials [7,8]. Without surgical repair, the recurrence rate is 10% [8]. Repair using adjacent structures (e.g., bladder) seems to provide a more stable repair than peritoneal closure alone [8]. Prostheses are classically used for optimal repair but are not recommended in cases of peritonitis or intestinal perforation.

En situation d'occlusion de l'intestin grêle, la laparoscopie, outre sa fonction thérapeutique, est également un outil diagnostique qui permet de révéler le caractère organique et l'étiologie de l'obstruction [7]. Bien que cette technique ait été rapportée, l'expérience dans le traitement des hernies obturatrices est actuellement trop limitée pour la recommander comme procédure de routine. Le traitement chirurgical implique une réduction douce sans tirer sur la bandelette, qui peut se boucher et se briser facilement. Si l'intestin devient nécrotique après réduction, une résection peu coûteuse est nécessaire. Les défauts peuvent être réparés par de simples sutures ou par l'insertion de matériaux prothétiques [7,8]. Sans réparation chirurgicale, le taux de récidive est de 10 % [8]. La réparation utilisant des structures adjacentes (Exp : vessie) semble fournir une répa-

ration plus stable que la fermeture péritonéale seule [8]. Classiquement, les prothèses sont utilisées pour une réparation optimale mais sont déconseillées en cas de péritonite ou de perforation intestinale.

Conclusion :

Obturator hernia is a rare cause of gastrointestinal disease, but its low clinical specificity makes preoperative diagnosis difficult. Computed tomography examination appears to be a significant aid in etiological diagnosis. However, once the diagnosis of obstruction is established, emergency intervention can reveal the etiology and propose treatment. Delayed treatment increases mortality and morbidity.

References:

1. Chang SS, Shan YS, Lin YJ, Tai YS, Lin PW. A Review of Obturator Hernia and a Proposed Algorithm for its Diagnosis and Treatment. World J Surg. 2005; 29 (4): 450-454. PubMed | Google Scholar
2. Hennekinne-Mucci S, Pessaux P, Du Plessis R, Regenet N, Lermite E, Arnaud JP. Hernie obturatrice étranglée: à propos de 17 cas. Annales de chirurgie. 2003 ; 128(3) : 159-162. PubMed | Google Scholar
3. Rodríguez-Hermosa JI, Codina-Cazador A, Maroto-Genover A, Puig-Alcántara J, Sirvent-Calvera JM , Garsot-Savall E, J Roig-García. Obturator hernia: clinical analysis of 16 cases and algorithmfor its diagnosis and treatment. Hernia. 2008; 12(3): 289-297. PubMed | Google Scholar
4. Nakayama T, Kobayashi S, Shiraishi K, Nishiumi T, Mori S, Isobe K, Furuta Y. Diagnosis and treatment of obturator hernia. Keio J Med. 2002; 51(3): 129-32. PubMed | Google Scholar
5. Haraguchi M, Matsuo S, Kanetaka K, Tokai H, Azuma T, Yamaguchi S, Kanematsu T. Obturator hernia in an ageing society. Ann Acad Med Singapore. 2007; 36(6): 413-5. PubMed | Google Scholar
6. Marzouka P, Carlonia A, Balzarottia R, Dumas De La Roqueb A, Smadja C. Le diagnostic de hernie obturatriceétranglée est-il encore clinique? Journal de Chirurgie. 2009; 146(6): 591-592. PubMed | Google Scholar
7. Cresienzo D, Faranda C, Perrot L, Champault G. Laparoscopic treatment of a strangulated obturator hernia. Hernia. 1998; 2(10): 203-205. PubMed | Google Scholar
8. Yokoyama T, Munakata Y, Ogiwara M, Kamijima T, Kitamura H, Kawasaki S. Preoperative diagnosis of strangulated obturator herniausing ultrasonography. Am J Surg. 1997; 174(1): 76-8. PubMed | Google Scholar