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Strangulated Obturator Hernia: Case Report

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***Abstract**: **Introduction**: Obturator hernia (HO) is a rarely diagnosed subgroup of hernias and occurs preferentially in elderly and emaciated women. These can be difficult to accurately identify in the initial stages of the patient's clinical course. It is the cause of 0.2 to 1.6% of mechanical small bowel obstructions with a mortality and morbidity rate after surgery of 35 and 18% respectively. Treatment is required of these hernias due to the likelihood of there being strangulation of the hernia. Also, these hernias often require treatment as an emergency procedure, as it is unlikely that the obturator hernia is likely to be reducible. **Observation:** We report the case of an 80 year old women in whom the diagnosis of strangulated HO is established in the context of the assessment of an occlusion. **Conclusion:** Preoperative diagnosis of obturator hernia remains difficult, due to the low specificity of the clinical examination. The CT scan can help in the etiological diagnosis. Any delay in treatment increases mortality, and emergency surgery will allow to specify the etiology and to ensure the treatment adapted to this type of pathology.*

Keywords: Obturator hernia, occlusions, small intestine

Introduction

Obturator hernia are uncommon presentations of abdominal pain, comprising <0.04% of all hernia [1].An obturator hernia is defined as the exit of part of the abdominal contents through the the obturator foramen [2-3]. As this is a small opening in the pelvis, there is an increased propensity for these herniae to get incarcerated and subsequently strangulated obturator hernia.[4] .The first case was observed in 1718 (Lemaire, Strasbourg). It is a rare pathology, as in 1995 only 644 cases had been published [5]
The diagnosis of an obturator hernia can be difficult, with the late presentation and often poor functional status of the patient. A high index of suspicion is required in the elderly population, and even then, diagnosis may not be achieved without imaging or operative findings.
Any therapeutic delay increasing mortality rate, surgery is mandatory in case of small bowel obstruction in order to make the diagnosis and the treatment of such rare pathology.

Case presentation

We present a case of an 80 year old women, mother of 6 children, hypertensive, never operated, thin and emaciated, who presented a sub-occlusive syndrome evolving 48 hours before her admission associated with some episodes of food vomiting. On examination, the patient was apyretic with a slightly distended abdomen, tympanic on percussion, with free hernial orifice, empty rectal ampulla.
Abdominale X Ray : air fluid levels located in the small intestine (figure 1)
Abdominal CT scan: strangulated right obturator hernia (figure 2)

Patient was operated by laparotomy; the exploration shows the presence of a strangulated obturator hernia on the left with lateral pinching responsible for the caliber mismatch.
We realized a gentle reduction of the small bowel which was viable and closure of the obturator foramen by plication of the parietal peritoneum, simple postoperative follow-up.

Discussion

The obturator foramen is the largest opening in the abdomen. [6]. the obturator membrane closes most of the surface of this orifice, leaving free a passage at its angle supero-external: the obturator canal. The obturator artery and nerve pass to the external part of the obturator canal. They are accompanied by fat, not allowing the creation of a
hernia. The clinical latency of obturator hernias does not allow not to define their prevalence; we only appreciate the strangulated hernias. They represent 0.05 to 1.4% of all operated hernias and 0.2 to 1.6% of intestinal obstructions [7]. Indeed, latent until its strangulation, the hernia obturator is revealed by an aspecific acute occlusive syndrome, sometimes preceded by episodes of spontaneously reduced strangulation (23.5% in our series). We find in the literature a rate of subocclusive episodes ranging from 11.8 to 34.7% [7].

In the majority of cases, the patient is a woman, aged (76 to 98 years old) and wasted. It is indeed nine times more common in women [8-9]. Women are most often affected because their obturator foramen is wider and the obturator canal is more horizontal [10]. The average patient weight with an obturator hernia is 34.5–39 kg [10-11].

Weight loss is a major factor in the formation of obturator hernias. It results in the melting of the fat pad in the subpubic canal, as well as the disappearance of subperitoneal fat. the peritoneum, no longer attached to the pelvic wall, will slide easily into the obturator canal emptied of its fat and form a hernia sac. These are usually small hernias [7sc](10). The obturator hernia is most often located on the right [4sc](8) (65% of hernias in our series). She is actually more symptomatic on the right. This seems to be explained by the presence of the sigmoid colon on the left, covering the obturator foramen and thus reducing the risk of strangulation.

The best clinical argument is the Romberg-Howship sign. Its frequency varies between 15 and 50% of cases [12-13]. It corresponds to a pain related to compression of the obturator nerve by the hernia sac , particularly of its cutaneous branch. It is amplified by abduction and internal rotation of the foot it is known to be pathognomonic of the obturator hernia. Different tests have been used for the diagnosis of HO. Currently, CT is the examination of choice [14-13]. The absence of an obvious cause of an acute small bowel obstruction should not lead to a conservative attitude, but to the early performance of an abdominal CT scan, especially in elderly patients with the risk factors already described. This examination is currently the most reliable way to establish the diagnosis of strangulated HO requiring a certain experience on the part of radiologists. This examination allows to shorten the diagnostic period diagnostic period, before the installation of an intestinal necrosis, or even peritonitis, responsible for a high mortality and morbidity.

The treatment of strangulated obturator hernia is surgical.Different approaches can be considered, varying both in their approach and in the repair technique. Emergency laparotomy is the quickest and safest approach, it facilitates bowel resection when the the occlusion is complicated by intestinal necrosis and exploration rectifies the diagnosis [3-12-13]. If the diagnosis is made preoperatively, the preperitoneal approach is the most appropriate most appropriate, allowing bilateral access to the femoral, inguinal and obturator regions. In the context of small bowel obstructions, in addition to its therapeutic role, laparoscopy is a diagnostic tool, allowing to specify the organic character and the etiology of the occlusion [13].

Currently, although this technique has been reported, experience in the treatment of obturator hernias is still too limited to be recommended as a routine procedure. Surgical treatment involves gentle without traction of the congestive and fragile loop that is incarcerated. If after reduction, the bowel is necrotic, an economical resection is required. The repair of the defect can be by simple suture or by placement of a prosthetic material [13-7].Without surgical repair, the recurrence rate is 10% [7]. Repair using adjacent structures (bladder) appears to provide a more stable repair than peritoneal closure alone [14]. Classically, optimal repairs use prostheses, which are not recommended in cases of peritonitis or intestinal perforation.

Conclusion

Obturator hernias are a rare cause of digestive obstruction whose preoperative diagnosis is difficult because of the low clinical specificity. The CT examination seems to be a major aid to the etiological diagnosis. However, once the diagnosis of occlusion has been made, an emergency operation will allow the etiology to be determined and the treatment to be carried out. Any delay in treatment increases mortality and morbidity.

Figure 1 : Abdominal X ray : air fluid levels located in the small intestine

Figue 2 : abdominal CT scan, axial section showing showing a right obturator hernia

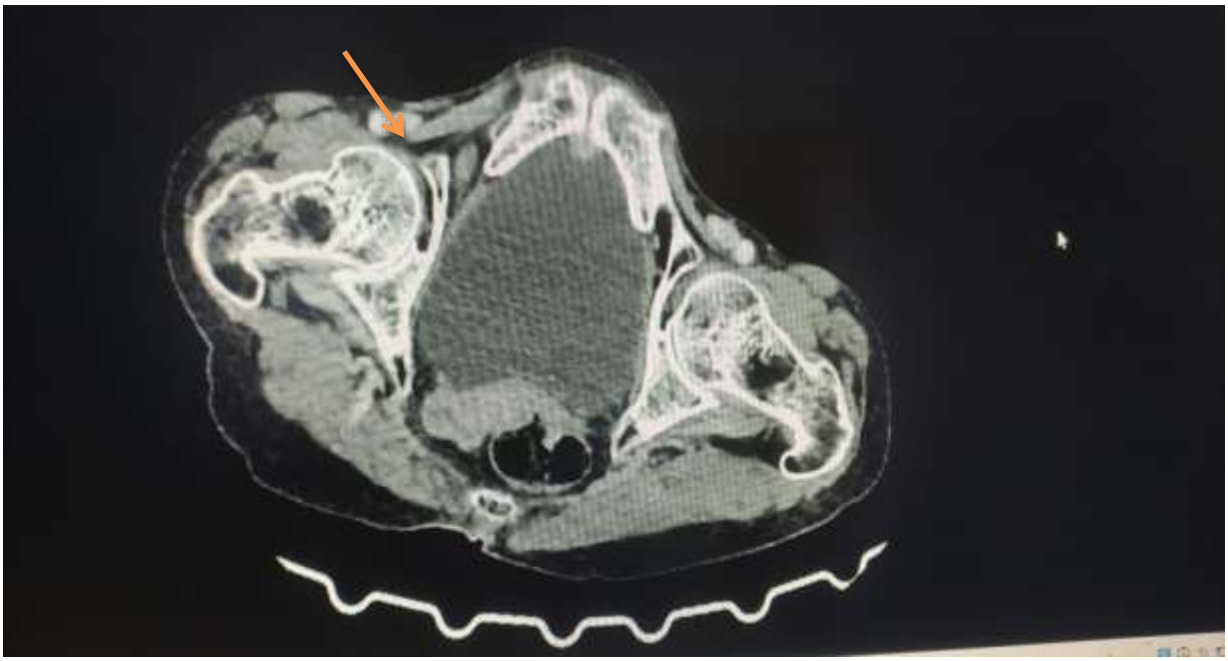

Figure 3 : lateral pinching of the incarcerated loop

Références :

1. Chung CC, Mok CO, Kwong KH, Ng EK, Lau WY, Li AK. Obturator hernia revisited: a review of 12 cases in 7 years. J R Coll Surg Edinb. 1997 Apr;42(2):82-4. [PubMed]
2. 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
3. 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
4. Ziegler DW, Rhoads JE. Obturator hernia needs a laparotomy, not a diagnosis. Am J Surg 1994;167:396–8.
5. Skandalakis LJ, Skandalakis PN, Colborn GL, Skandalakis JE. Obturator hernia embryology, anatomy, surgery. Hernia 2000;4:121–8
6. Yokoyama T, Munakata Y, Ogiwara M, Kamijima T, Kitamura H, Kawasaki S. Preoperative diagnosis of strangulated obturator hernia using ultrasonography. Am J Surg 1997;174:76–8.
7. Yokoyama Y, Yamaguchi A, Isogai M, Hori A, Kaneoka Y. Thirty-six cases of obturator hernia: does computed tomography contribute to postoperative outcome? World J Surg 1999;23:214–6.
8. Hsu CH, Wang CC, Jeng LBJ, Chen MF. Obturator hernia: A report of 8 cases. Am J Surg 1993;59:709.
9. Guillem P, Bounoua F, Duval G. A case of hip pain in an elderly woman. BJR 2001;73:1233–4.
10. Bagstein JM, Condon RE. Obturator hernia: current diagnosis and treatment. Surgery 1996;119:133–6.
11. Rodríguez-Hermosa JI, Codina-Cazador A, Maroto-Genover A, Puig-Alcántara J, Sirvent-Calvera JM , Garsot-Savall E, J RoigGarcía. Obturator hernia: clinical analysis of 16 cases and algorithmfor its diagnosis and treatment. Hernia. 2008; 12(3): 289-297. PubMed | Google Scholar
12. Cresienzo D, Faranda C, Perrot L, Champault G. Laparoscopic treatment of a strangulated obturator hernia. Hernia. 1998; 2(10): 203-205. PubMed | Google Scholar
13. 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
14. 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