

Obturator Hernia: A Case Report

O. Ounjif^{1*}, A. Mahmoud¹, A. Chanfir¹, R. Lemtouni¹, W. Berramou¹, A. Outouzalt¹, Y. Elhadrami¹, A. Hamri¹, Y. Narjis¹, R. Benelkhaïat¹

¹Department of Surgery, Ibn Tofail Hospital, Mohamed 6 University Hospital, Faculty of Medicine and Pharmacy, Cadi Ayad University, Marrakech 4000, Morocco

DOI: [10.36347/sasjs.2023.v09i09.006](https://doi.org/10.36347/sasjs.2023.v09i09.006)

| Received: 17.06.2023 | Accepted: 23.07.2023 | Published: 08.09.2023

*Corresponding author: O. Ounjif

Department of Surgery, Ibn Tofail Hospital, Mohamed 6 University Hospital, Faculty of Medicine and Pharmacy, Cadi Ayad University, Marrakech 4000, Morocco

Abstract

Case Report

Obturator hernia is rare, and is diagnosed as part of the occlusion examination. It is very common in elderly, thin women. Preoperative diagnosis is difficult, but CT is a major aid to etiological diagnosis. Treatment is surgical (emergency laparotomy). Any delay in treatment increases mortality and morbidity.

Keywords: Obturator hernia, occlusion, elderly woman, laparotomy.

Copyright © 2023 The Author(s): This is an open-access article distributed under the terms of the Creative Commons Attribution **4.0 International License (CC BY-NC 4.0)** which permits unrestricted use, distribution, and reproduction in any medium for non-commercial use provided the original author and source are credited.

INTRODUCTION

Obturator hernia (OH) is defined as the exit of a part of the abdominal content through the obturator canal. It is a rare pathology. It accounts for 0.2% to 1.6% of mechanical small bowel obstructions, with mortality and morbidity rates after surgery of 35% and 18% respectively. The aim of our work is to consider various diagnostics, clinical and therapeutic aspects of this rare variety of hernia.

We report the case of a patient diagnosed with strangulated OH as part of the assessment of an occlusion.

OBSERVATION

A 75-year-old mother of 4, diabetic patient on insulin for 20 years, who had never undergone surgery, presented to the emergency department with an occlusive syndrome that had been evolving for 24 hours prior to admission.

On examination: patient conscious, hemodynamically and respiratory stable, afebrile, abdomen slightly distended, tympany on percussion, free hernia orifices and empty rectal ampulla.

Plain abdominal x-rays: NHA (small intestine).

Abdominal CT: strangulated left OH.

The patient underwent surgery, and the exploration revealed bowel distension upstream of a strangulated obturator hernia on the left, with a lateral pinch responsible for the disparity in caliber. The procedure consisted of gentle reduction of the incarcerated small intestine, which was viable, and closure of the obturator hole by plication of the parietal peritoneum with a 3/0 round-needle slow-resorption suture.

Post-operative follow-up was straightforward, and the patient resumed transit on the second postoperative day.

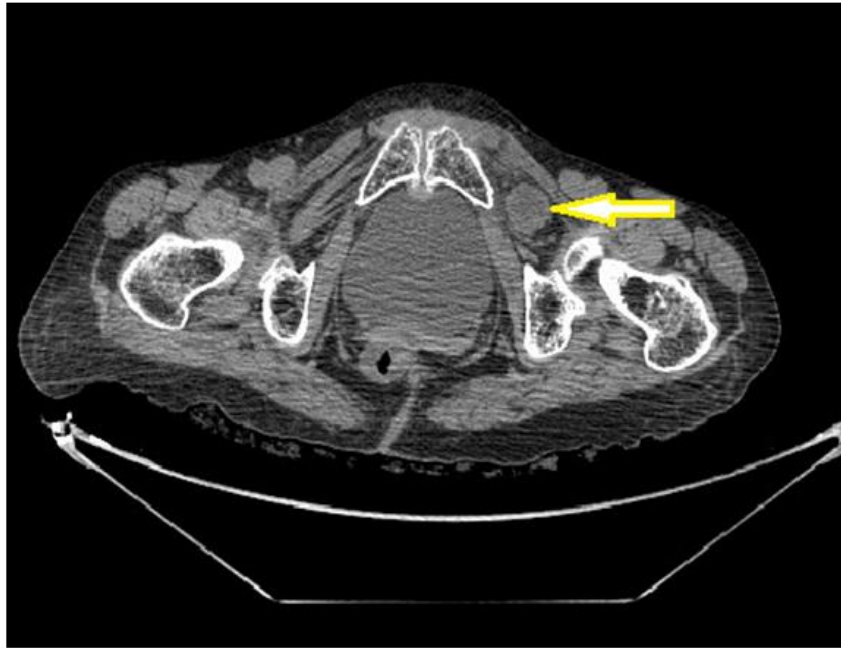


Figure 1: Tomodensitometrie Abdominale Coune Transversale

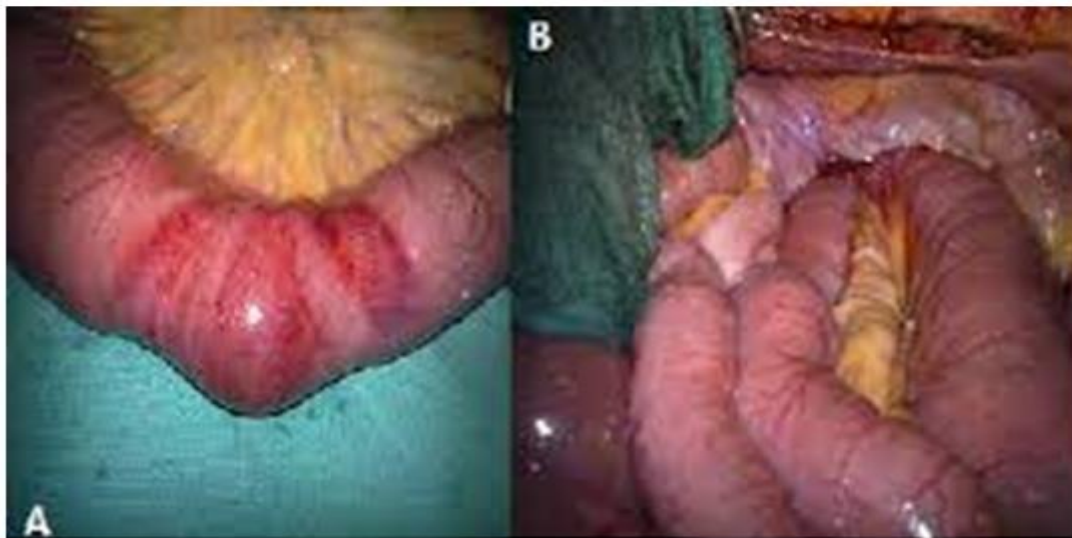


Figure 2: (A) Pincement Lateral de L'anse

DISCUSSION

Strangulated obturator hernia is a rare pathology [3, 4]. The first case was observed in 1718 (Lemaire, Strasbourg). Its prevalence is increasing as the population ages [5]. OH is six times more common in women than in men [5, 6]. Factors most often associated with the development of strangulated OH are advanced age (over 70), female gender, weight loss and the occurrence of pelvic floor laxity associated with multiparity [6]. The obturator hernia is generally latent until strangulation, and it is revealed by an acute occlusive syndrome, sometimes preceded by episodes of spontaneously reduced strangulation in 23.5% of cases [6].

In the literature, the rate of sub-occlusive episodes varies from 11.8% to 34.7% [4, 6]. OH most often occurs on the right side, associated with inguinal hernia in 2.1% of cases [7], and is bilateral in 6% of cases.

The best clinical argument is the Howship-Romberg sign. Its frequency varies between 15% and 50% of cases [3, 7]. It corresponds to pain associated with compression of the obturator nerve by the hernia sac, particularly its cutaneous branch. It is amplified by abduction and internal rotation of the foot and is known to be pathognomonic of obturator hernia. Indeed, given the rarity of this pathology, it is not one of the clinical signs routinely sought when examining a patient with an acute small bowel obstruction. Various tests have been

used to diagnose OH. At present, CT is the examination of choice [6, 7].

The absence of an obvious cause of acute small bowel obstruction should not lead to a conservative attitude, but rather 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 means of establishing the diagnosis of strangulated OH, requiring a certain amount of experience on radiologists side.

This examination can shorten the diagnostic period, before the onset of intestinal necrosis or even peritonitis, responsible for high mortality and morbidity [7].

Strangulated obturator hernia is treated surgically. Various approaches can be envisaged, varying both in terms of approach and repair technique.

Emergency laparotomy is the quickest and safest approach: it facilitates bowel resection when the occlusion is complicated by bowel necrosis, and exploration rectifies the diagnosis [2, 3, 7]. If the diagnosis is made preoperatively, the preperitoneal route is the most appropriate, allowing bilateral access to the femoral, inguinal and obturator regions. For small bowel obstructions, in addition to its therapeutic role, laparoscopy is a diagnostic tool, enabling the organic nature and etiology of the obstruction to be determined [7].

At present, 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, traction-free reduction of the congestive and fragile incarcerated loop. If, after reduction, the intestine is necrotic, an economical resection is required. Repair of the defect can be achieved by simple suture or by placement of a prosthetic device [7, 8]. Without surgical repair, the recurrence rate is 10% [8]. Repair using adjacent structures (for example: bladder) appears to provide a more stable repair than peritoneal closure alone [8]. Classically, optimal repairs use prostheses, which are not recommended in cases of peritonitis or intestinal perforation.

CONCLUSION

OH is a difficult entity to diagnose preoperatively, due to its low clinical specificity. Computed tomography appears to be of major help in the etiological diagnosis. But once the diagnosis of occlusion has been made, emergency surgery is required to clarify the etiology and provide treatment. Any delay in treatment increases mortality and morbidity.

REFERENCES

1. Chang, S. S., Shan, Y. S., Lin, Y. J., Tai, Y. S., & Lin, P. W. (2005). A review of obturator hernia and a proposed algorithm for its diagnosis and treatment. *World journal of surgery*, 29, 450-454.
2. Hennekinne-Mucci, S., Pessaux, P., Du Plessis, R., Regenet, N., Lermite, E., & Arnaud, J. P. (2003, April). Hernie obturatrice étranglée: à propos de 17 cas. In *Annales de chirurgie* (Vol. 128, No. 3, pp. 159-162). Elsevier Masson.
3. Rodríguez-Hermosa, J. I., Codina-Cazador, A., Maroto-Genover, A., Puig-Alcántara, J., Sirvent-Calvera, J. M., Garsot-Savall, E., & Roig-García, J. (2008). Obturator hernia: clinical analysis of 16 cases and algorithm for its diagnosis and treatment. *Hernia*, 12, 289-297.
4. Nakayama, T., Kobayashi, S., Shiraishi, K., Nishiumi, T., Mori, S., Isobe, K., & Furuta, Y. (2002). Diagnosis and treatment of obturator hernia. *The Keio journal of medicine*, 51(3), 129-132.
5. Haraguchi, M., Matsuo, S., Kanetaka, K., Tokai, H., Azuma, T., Yamaguchi, S., & Kanematsu, T. (2007). Obturator hernia in an ageing society. *Annals-Academy of Medicine Singapore*, 36(6), 413-415.
6. Marzouk, P., Carloni, A., Balzarotti, R., De La Roque, A. D., & Smadja, C. (2009). Le diagnostic de hernie obturatrice étranglée est-il encore clinique?. *Journal de Chirurgie*, 146(6), 591-592.
7. Cresienzo, D., Faranda, C., Perrot, L., & Champault, G. (1998). Laparoscopic treatment of a strangulated obturator hernia. *Hernia*, 2(4), 203-205.
8. Yokoyama, T., Munakata, Y., Ogiwara, M., Kamijima, T., Kitamura, H., & Kawasaki, S. (1997). Preoperative diagnosis of strangulated obturator hernia using ultrasonography. *The American journal of surgery*, 174(1), 76-78.