Journal of african clinical cases and reviews / Journal africain des cas cliniques et revues

www.jaccrafrica.com ISSN: 1859-5138 Open access

Case Report

Strangulated umbilical hernia containing vermiform appendix: About a case report from Dakar

Hernie ombilicale contenant l'appendice vermiforme : à propos d'un cas à Dakar

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Abstract

Umbilical hernia (UH) is the most common pathology of the anterior wall of the abdomen in children in our regions. Spontaneous closure is possible with growth but in most cases the defect persists and exposes to complications such as strangulation especially among black race. In these strangled forms, the content is almost always the small intestine or epiploon. We describe through this observation a rare case of strangulation of an UH where the hernia sac contained the vermiform appendage.

Keywords: Hernia, Umbilical, Strangulation, Appendix, Child, Dakar.

Résumé

La hernie ombilicale est la plus fréquente des pathologies de la paroi antérieure de l'abdomen chez l'enfant dans nos régions. La fermeture spontanée est possible avec la croissance mais dans la majorité des cas le defect persiste et expose à des complications à type d'étranglement surtout chez le sujet de race noire. Dans ces formes étranglées, le contenu est presque toujours le grêle ou l'épiploon. Nous décrivons à travers cette observation un cas rare d'étranglement de hernie ombilicale dont le sac herniaire contenait l'appendice vermiforme.

Mots clés : Hernie, ombilicale, étranglement, Appendice, enfant, Dakar.

Introduction

Umbilical hernia is one of the most common congenital pathologies of the anterior abdominal wall in children. The contents of umbilical or paraumbilical herniae are usually omentum, sometimes accompanied by bowel loops. Rare contents include metastatic deposits, appendix epiploicae, and a normal or inflamed vermiform appendix [1-3].

We report a rare case of strangulation of an umbilical hernia where the hernia sac contained the vermiform appendix in an 8-year-old boy to highlight the challenges in diagnosis and management, and review the literature.

Case Report

It was an 8 year old boy received in our service for painful tumefaction of the umbilicus evolving for 4 days. He is an only child, with no particular pathological antecedents. The hernia has been observed since birth, with moderate volume with no regression and no previous medical consultation. In front of onset of the abdominal pain and persistent umbilical tumefaction, parents leads him consultation.

On admission, the examination found: a temperature at 37°2, a weight of 25 kg, height at 122 cm. Other than tachycardia (pulse = 104/min), general physical examination was unremarkable. Abdominal examination revealed firm painful and irreducible swelling on the umbilicus, with no other areas of tenderness or free fluid.

X-Ray of abdomen without preparation showed a good distribution of the gases, without hydro-aerial level. Abdominal ultrasound showed a digestive content in the umbilical mass.

The diagnosis of strangulated umbilical hernia was made. The patient is operated on urgently by umbilical approach, arciform of 3 cm. The opening of the hernia sac was allowed to find a viable ileocecal appendix, non-inflammatory and not containing stercolith (figure 1).

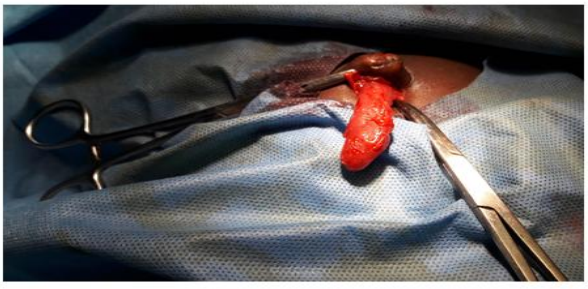

Figure 1: Umbilical hernia containing vermiform appendix

The neck was 1.5 cm in diameter (medium Lasselata). We proceeded to an enlargement of the neck which made it possible to note a defect of connection of the cecum. Appendix and cecum were reintegrated, the hernia sac resected and the fascia was closed by 3 points in X with Vicryl 0.

The results postoperative were simple and the patient was leave' hospital on the 3rd postoperative day. The resumption of physical activities at school is allowed since the 2nd month. After a three-month follow-up, no complication was noted. The clinical control shows a complete closure of the neck and a good wound healing.

Discussion

Anatomical position of the appendix may vary depending upon the degree of intestinal rotation during development or variations in caecal attachments [4]. So, it is not uncommon to find a vermiform appendix in an external hernia inguinal or femoral. However, acute appendicitis within an inguinal or femoral hernia is very rare; even rarer is acute appendicitis within an umbilical hernia [3, 4]. The reported incidence of appendicitis within the hernia sac is 1.6% for adults, but there is no such incidence for children [3, 5, 6].

The incarceration of the appendix through the umbilical ring is somewhat described in the literature [4, 7]. Failure to attach the cecum, an incomplete mesentery, or a long mesoceliac appendix could provide the appendix with the opportunity to engage in the umbilical ring. The irreducible character is explained by the occurrance of edema, inflammation of end of appendix or by the presence within it of a stercolith. Sporadic cases of incarceration bezoars or ascaris have been reported in our context [8].

Strangulation is more common in children with moderate defect who are more than six months old [9-11]. In our observation, the appendix was healthy, and a stercolith was not palpated. The absence of inflammatory character of the macroscopic and biologically justified our choice not to proceed with an appendectomy. Especially since this gesture could increase the risk of contamination of the operative site [12]. The prevention of this type of complication involves systematic treatment of any persistent umbilical hernia. Unfortunately in our regions umbilical hernia is sometimes considered as a benign pathology whereas hospital series show significant cases of strangulation sometimes leading to death [8]. We must go through a chain of awareness among pediatricians and the populations to achieve a good awareness on the risks of strangulation of umbilical hernias.

Conclusion

Umbilical hernia is rarely complicated by acute appendicitis. These rare cases frequently lack clinical signs of acute appendicitis, and its diagnosis is virtually never made before perforation.

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Received: 15 March, 2018 ; **Accepted**: 27 May ,2018

Published : 14 June,2018

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Conflict of interest: No

Références

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To cite this article:

Fall Mbaye, Cissé Lissoune, Lo Faty Balla et al**.** Strangulated umbilical hernia containing vermiform appendix: About a case report from Dakar .*Jaccr Africa 2018*; 2(2):261-263.