

Umbilical cyst after laparoscopic approach resembling incisional hernia

Abstract

Incisional hernias in the trocar site after laparoscopic management is one frequent complications in the era of laparoscopic approach, but this suspect must be confirmed by ultrasound to avoid misdiagnosis like in the present case.

Male patient of 34 years old came to consultation by a umbilical mass of 6 months of evolution. He had background of cholecystitis managed by laparoscopic cholecystectomy 8 months before, no other pathologies were referred. The umbilical mass grows up gradually and produces pain that increase with the increase of abdominal pressure. At physical exam a umbilical mass, no reducible was palpated exactly in the umbilicus. By the background and presentation an incisional hernia in the umbilicus was suspected and patient scheduled for umbilical hernia repair. During surgery the umbilicus was detached and there was no hernia defect in abdominal wall, a cyst of 2 cm was observed exactly under the umbilical skin and resected. Pathology exam confirmed a cyst.

In medicine not everything is what it seems. The diagnosis must be confirmed by all the available methods before any management to provide the patient with safety and the best management.

Keywords: laparoscopy complications, trocar site complications, trocar site cyst

Volume 1 Issue 3 - 2018

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Received: May 20, 2018 | **Published:** May 29, 2018

Case report

Male patient of 34 years old came to consultation by an umbilical mass of 6 months of evolution. He had background of cholecystitis managed by laparoscopic cholecystectomy 8 months before, and no other pathologies were referred. Two months after surgery the patient refers that an umbilical mass grows up gradually and produces pain that increase with the increase of abdominal pressure. At physical exam an umbilical mass, no reducible, was palpated exactly in the

umbilicus scar (Figure 1). By the background and presentation an incisional hernia in the umbilicus was suspected and patient was scheduled for umbilical hernia repair. During surgery the umbilicus was detached and there was no hernia defect in the abdominal wall. A cyst of 2 cm was observed exactly under the umbilical skin and resected (Figure 2). Pathology exam confirmed the diagnosis of an epidermal inclusion cyst (Figure 3). At follow up three months after the surgery, the patients still asymptomatic and the umbilicus without any lesion.



Figure 1 Umbilicus with mass exactly under the skin before surgery.



Figure 2 Umbilicus detached and cyst under the skin with abdominal wall intact.

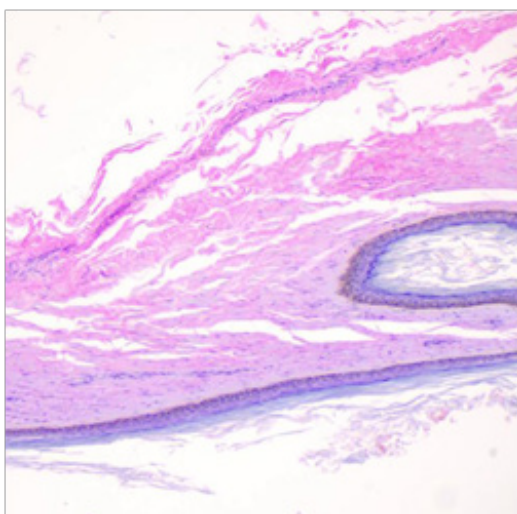


Figure 3 100x hematoxylin and eosin stain showing laminated keratin with plane stratified epithelium with granular layer.

Discussion

Umbilical epidermal cyst is a rare condition with limited description in the literature, with some cases reported after abdominoplasty, arthroscopic or minimally invasive procedures in gynecology.¹⁻³ It consists in a squamosed stratified epithelial cells that continue to the granular layer, and in some cases it is filled with keratin. Another kind of cyst could combine squamosed cells and apocrine glands and some older cyst contain calcification or foreign bodies.^{1,2}

Those lesions could be suspected when patient have history of poor healing in the umbilicus after an intervention in this location like the minimally invasive procedures.^{1,2}

The physiopathology is not well described but one theory consist on epidermal cells implants by laparoscopic approaches, when the surgical instruments can cause an invagination of the epidermis below the dermis. Other causes include a traumatic implantation of surface epithelium beneath the skin or a developmental defect of the sebaceous duct.

The diagnosis must be based on physical exam and imaging exams. By the rarity of this type of lesions the suspicious must be missed in many cases and confounded with umbilical hernia. Umbilical hernia is an acquired disorder caused by extrusion of intraabdominal contents through an incompletely closed umbilical ring. Some other factors like the surgical intervention background supporting this suspect, and the pain associated with the increase in abdominal pressure like in the presented case.^{1,2}

When there is doubt or an history of poor healing after a previous surgery an ultrasound could be enough to complete the diagnosis if there isn't evidence of hernia defect, and sometimes the cyst could be described in extensively.²

The background of pregnancy at the moment of presentation, overweight or previous surgery could support the suspicious of umbilical hernia, but the differential diagnosis from other type of midline tumors like cyst, tumors, abscess, omphalitis, keloid, and urachal cyst, is a bulging in the navel palpated with Valsalva maneuver.^{1,2,4} Some other patients describes discomfort or pain when they perform exercise or with movements that increase abdominal pressure. In the present case he described a progressive growing mass in the umbilicus after the cholecystectomy that produces pain at palpation and Valsalva maneuver, without reduction at palpation like an umbilical incarcerated hernia, and no hernia defect could be palpated by this phenomenon, confounding us in the diagnosis, like described in other reports.^{1,2}

Conclusion

In medicine not everything is what it seems. The diagnosis must be confirmed by all the available methods before any management to provide the patient with safety and the best management according to the pathology. Although the presented pathology is very rare, surgeons must be informed about it to discard this and other differential diagnosis before installing any treatment.

Acknowledgments

None.

Conflicts of interest

The author declares that there is no conflict of interest.

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