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RESEARCH ARTICLE
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A RARE CASE OF SPONTANEOUS ENDOMETRIOSIS WITH UMBILICAL HERNIA

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Abstract:
Introduction: Spontaneous Endometriosis occurring in association with umbilical hernia is extremely rare. Treatment is excision of endometriosis and mesh plasty .
Case report: A 39-year female presented with umbilical swelling for 2 years. Pain was there on and off for one year. Clinically it appeared to be an irreducible umbilical hernia. Ultrasound was suggestive of endometriosis along with the hernia. Intra operatively the sac was empty and the lesion was anterior to the sac. It was excised and mesh repair was done. The lesion was found to be endometriosis on biopsy.
Conclusion: Spontaneous Endometriosis of umbilicus can masquerade as irreducible umbilical hernia. High degree of suspicion is to be entertained. Surgery is the mainstay of therapy for umbilical endometriosis associated with an under-lying hernia.

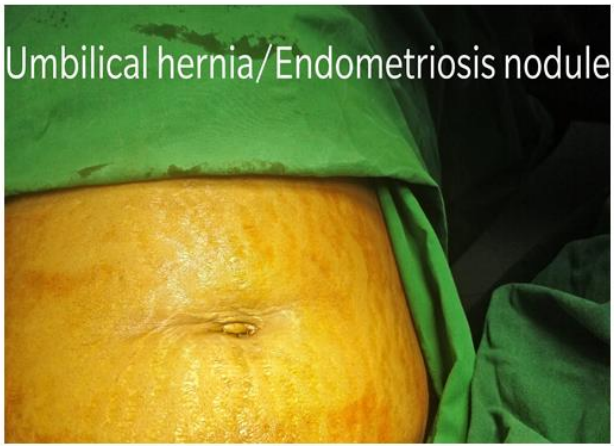
Keywords: umbilical hernia, endometriosis, mesh plasty, excision biopsy.

Introduction

Umbilical hernia repairs are very common procedures for general surgeons. It is the second most common hernia procedure after inguinal hernia repairs. [1] Its risk factors for umbilical hernias include conditions that increase intra-abdominal pressure such as COPD, constipation, obesity, intra abdominal tumours and multiparity. Spontaneous endometriosis of an umbilical hernia is extremely rare, noted to occur only in 0.5-1% of all patients with endometrial ectopia.[2]

Case Presentation

A 39-year old female presented with a two year history of an umbilical swelling and pain on and off for one year. There was no clear-cut history of aggravation of pain during menstruation. The bulge had not grown in size, but had become painful for the last 3 days. She was the mother of 2 children; last child birth was 11 years back. Local examation revealed a 2 x 1 cm partially reducible swelling at the umbilicus.

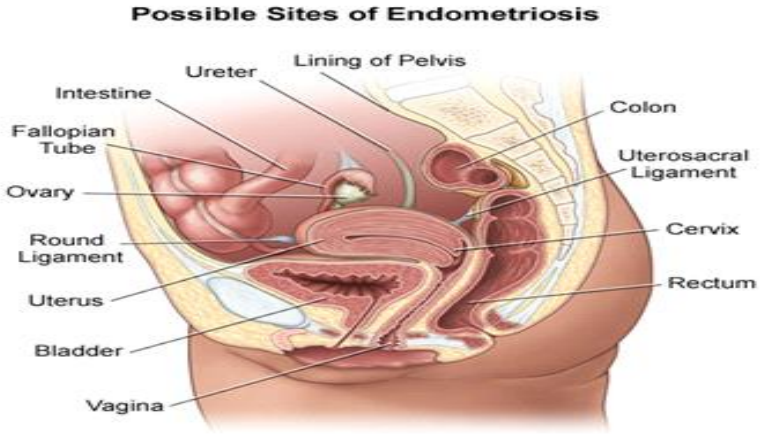


Abdominal ultrasound revealed a defect in the linea alba measuring 12 mm in diameter in umbilical region with herniation and appeared to be irreducible. A small hypoechoic area measuring 1.3 x 1.0 cm in size was also seen in the umbilical region ?Granuloma / Scar endometriosis.

The patient was taken for open umbilical hernia mesh repair as a semi emergency procedure with provisional diagnosis of an irreducible omentocele. An infra-umbilical transverse incision was made. Incision was deepened upto the rectus sheath. Umbilicus was dissected and the neck of the sac was defined. The small sac of umbilical hernia was opened, and found to be empty. 2 x 3 cm nodule found anterior to sac and deep to umbilicus. The nodule was excised and sent for histopathological examination. Peritoneal sac was closed with 2–0 vicryl. Defect in linea alba was closed transversely with 2-0 polypropylene. 7.6 x 15 cm polypropylene mesh was placed onlay and anchored with 2-0 polypropylene. Umbilicus was anchored onto mesh. Suction drains were placed. Layers were closed with 2-0 vicryl and skin with 3-0 nylon interrupted sutures. Histopathology analysis revealed endometriosis.

Discussion

Endometriosis is the presence of endometrial glands and stroma outside the normal uterine cavity.It is a benign disease.[3] It affects approximately 5%-15% of women, and most patients are in their third to fourth decade of life. It is often accompanied with infertility and catamenial abdominal pain[3]. The most common site of occurrence of endometriosis is in the pelvis, involving the ovaries, broad ligament, recto-sigmoid colon, and appendix. This condition can also develop in surgical scars, especially after Caesarean sections and in laparoscopic port sites, but occasionally occurs spontaneously (as in our case). Umbilical endometriosis is reported to occur in only 0.5%-1% of all patients with endometrial ectopia[2].



Congenital umbilical Hernia: Failure of the umbilical ring to close results in a central defect in the linea alba. The resulting umbilical hernia is covered by normal umbilical skin and subcutaneous tissue, but the fascial defect allows protrusion of abdominal contents.

In congenital cases, when the defect is small and spontaneous closure is likely, most surgeons will delay surgical correction until 5 years of age. If closure does not occur by this time or a younger child has a very large or symptomatic hernia, it is reasonable to proceed to repair. Repair of uncomplicated umbilical hernia is performed under general anaesthesia as an outpatient procedure. A small curving incision that fits into the skin crease of the umbilicus is made, and the sac is dissected free from the overlying skin. The fascial defect is repaired with non absorbable(polypropylene) or delayed absorbable(dexan) interrupted sutures that are placed in a transverse plane. The skin is closed using subcuticular sutures. The postoperative recovery is typically uneventful and recurrence is rare, but it is more common in children with elevated intraabdominal pressures, such as those with a VP shunt[9].

Acquired umbilical hernias are generally asymptomatic protrusions of the abdominal wall. They are generally noted by physicians. All patients with umbilical hernia should be counselled about signs of irreducibility and strangulation, which are more common in smaller (1 cm or less) rather than larger defects. Obstruction presents with abdominal pain, bilious emesis, and a tender and tense mass in the umbilicus. This constellation of symptoms mandates immediate exploration and repair of the hernia to avoid strangulation and bowel gangrene. Many times the patient is asymptomatic and treatment is governed by the size of the defect, the age of the patient, and the concern about the cosmetic appearance of the abdomen.

Umbilical endometriosis is of interest to the general surgeon as it may be mistaken for a melanoma, cyst, abscess, suture granuloma or a metastatic deposit from a systemic malignancy [4].Endometriosis should be suspected in all pre-menopausal women presenting with umbilical swelling and cyclical symptoms [5].

As many of these patients will have concomitant pelvic endometriosis, it is recommended to perform preoperative imaging prior to elective repair. Magnetic resonance imaging has been shown to be the modality of choice as it is useful in delineating the size and location of extra-pelvic endometriosis and excluding intra-abdominal extension of the disease [5,6].

Although ultrasound guided biopsy and hormonal therapy have been described, surgical resection and hernia repair are the mainstay of therapy [7]. Superficial therapies like thermo-coagulation of endometriosis can lead to relapse and are not recommended [8]. Both laparoscopic and open approaches have been described for wide excision of the umbilical lesion and hernia repair.

Conclusion

Spontaneous umbilical endometriosis is rare. It needs a high degree of suspicion to diagnose this condition. It is important to elicit a thorough history from the patient, specifically inquiring about the occurrence of pain, whether it is cyclic and worse during her menstrual cycles. Endometriosis can be mistaken for the more common pre-peritoneal fat incarceration in an umbilical hernia. It may also present as a strangulated hernia at this site. The lesion needs a complete excision to prevent a recurrence and pathologic examination.

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