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Spontaneous Intramuscular Rectus Abdominis Endometrioma – A Diagnostic Challenge

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Abstract

We present an interesting case of spontaneous intramuscular rectus abdominis endometrioma, which is a rare condition in a virgin abdomen. A 38 year old lady was referred with a history of persistent right sided lower abdominal pain for several months associated with tender mass, fixed within the anterior abdominal wall, below and to the right of the umbilicus. There was no other history of relevance.

This case report aims to increase awareness of this rare condition, which can pose a diagnostic challenge.

Introduction

Endometriosis is defined as the presence of ectopic endometrial tissue that can respond to ovarian hormonal stimulation and the term *endometrioma* is given to endometriosis when it forms a discrete mass. Endometriosis has been detected in 15% to 44% of laparoscopies and laparotomies performed on women in the reproductive age group [1]. It has been described in almost all body cavities and organs, including extra-pelvic locations, and in the abdominal wall, where it is most frequently reported in a previous surgical scar, commonly that of a caesarean section [2,3]. Endometrioma confined to the rectus abdominis muscle is particularly a rare occurrence with less than 20 cases reported to date. Of all these cases, only four had no previous history of anterior abdominal wall surgery [4].

Case Report

A 38 year old lady was referred with a history of persistent right sided lower abdominal pain for several months. She had been extensively investigated by the Gynecologists, including a recent laparoscopy and divisions of peritoneal adhesions in the pelvis, secondary to a previous caesarian section. There was no other history of relevance. On clinical examination there was a tender mass, fixed within the anterior abdominal wall, below and to the right of the umbilicus. CT and MRI showed characteristic enhancement suggestive of the presence of a rectus sheath hematoma. Within three months patient's symptoms had resolved in keeping with the suggested diagnosis of resolving rectus sheath hematoma; the mass had certainly decreased in size clinically.

The patient presented again six months after. A repeat MRI showed a right rectus sheath mass (Figure 1), which had enlarged since the previous scan. Radiologically this was still suggestive of a rectus sheath hematoma, though clinically, due to the persistence of the lesion and increase in size. Other diagnoses were entertained; including desmoid tumor or sarcoma. The mass was explored under general anesthesia via a transverse incision. A 3 cm hard mass was seen to be bulging through the anterior rectus sheath arising from the underlying muscle and adherent to underlying peritoneum. In view of uncertain diagnosis, the mass was excised widely and was sent for histology. A primary closure was achieved without the need of a mesh, using 0 PDS for the peritoneum and 0 loop nylon for the rectus sheath. The histology revealed endometriosis with in striated muscle. The patient made a full recovery from her surgery and was referred to Gynaecologists for further treatment of endometriosis. She was started on Norethisterone 5 mg TDS for 90 days and further follow up was planned with a transvaginal ultrasound scan and a cervical smear. Post operative surgical review at 6 weeks and 3 months showed excellent wound healing and no evidence of incisional hernia and was no evidence of recurrence clinically.

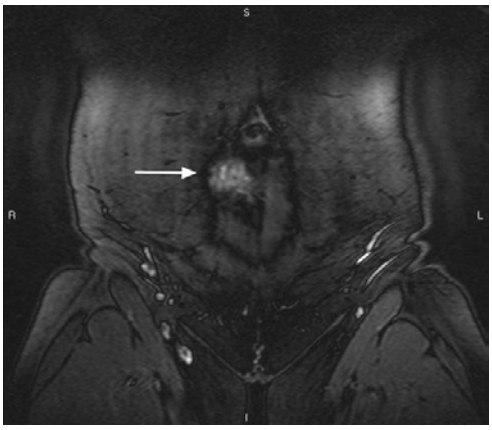

Figure 1: Coronal STIR MR sequence after IV contrast, clearly showing the umbilicus and a normal left rectus abdominis muscle. On the right a brightly enhancing 3 cm mass inferior and right to the umbilicus within the right rectus abdominis.

Discussion

Only 13% of patients present with abdominal wall endometriosis have a history or subsequent diagnosis of pelvic endometriosis [5]. Therefore it is a very difficult diagnosis to establish clinically and one has to rely on special investigations for diagnosis. A definitive preoperative diagnosis cannot be made with ultrasound or CT alone; though they may be helpful [6]. Ultrasonographic features of abdominal wall endometriomas include hypoechoic non-homogeneous texture,

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internal hyperechoic echoes, and irregular margins [6,7]. Computed tomography assists in demarcating the boundaries of the mass, however, again it cannot ascertain the diagnosis [7,8].

Magnetic resonance imaging is a more specific modality for diagnosis because of its ability to detect hemorrhage and degenerated blood products, including methemoglobin [8], as was evident in our case, which was clearly a rectus sheath hematoma secondary to an underlying endometrioma.

The treatment of choice for endometrioma of the rectus abdominis muscle is a wide local excision of the lesion with clear margins. The surgical excision should include 5–10 mm of surrounding healthy tissue and care must be taken not to rupture the mass to avoid re-implantation of microscopic remnants of endometrial tissue. Recurrence usually presents within one year. A recurrence rate of 4.3% is reported in literature, which is considered to be likely due to an initial inadequate excision [9,10].

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