

A RARE CASE OF RECTUS SHEATH AND RECTUS MUSCLE –ENDOMETRIOMA

***R. Alagar Samy and R. Purushothaman**

ESIC Medical college and Hospital, Coimbatore, Tamilnadu, India

**Author for Correspondence*

ABSTRACT

Endometriosis was first described by Rokitansky in 1860 and was defined as the presence and proliferation of the endometrium outside the uterine cavity, commonest site being the pelvis. The incidence of surgically proven endometriosis in scars was 1.6%. The most common site is at a caesarean section scar. But there are case reports of involvement of the rectus abdominis muscle in a virgin abdomen. Endometriosis, in patients with scars, is more common in the abdominal skin and subcutaneous tissue compared to muscle and fascia. Endometriosis involving only the rectus muscle and sheath is very rare. Scar endometriosis is rare and difficult to diagnose, often confused with other surgical conditions. A 30 yr old P3L3 female presented with c/o pain in the lower abdomen during menstrual period for 1 yr. P/A -2×3 cm firm swelling in the right lower abdomen. On leg raising swelling gets more prominent suggested parietal swelling. USG of Abdomen and pelvis-2.8×1.8 cms swelling in the Rectus muscle plane-E/o Endometrioma. Excision of mass with partial excision of rectus muscle. HPE was consistent with Endometriosis. The patient is on regular follow up. This case is being presented for its rarity.

Keywords: Rectus Sheath, Rectus Muscle, Endometrioma, Excision

INTRODUCTION

Endometriosis was first described by Rokitansky in 1860 and was defined as the presence and proliferation of the endometrium outside the uterine cavity, commonest site being the pelvis. The actual incidence of abdominal wall endometriosis is unknown but one series reported that only 6% of cases were unrelated to scars. In another series, the prevalence of surgically proven endometriosis in scars was 1.6% (Applebaum *et al.*, 2004). The most common site is at a caesarean section scar. But there are case reports of involvement of the rectus abdominis muscle in a virgin abdomen (Koger *et al.*, 1993). Endometriosis, in patients with scars, is more common in the abdominal skin and subcutaneous tissue compared to muscle and fascia. Endometriosis involving only the rectus muscle and sheath is very rare (Blanco *et al.*, 2003). The simultaneous occurrence of pelvic endometriosis with scar endometriosis has been found to be infrequent. Scar endometriosis is rare and difficult to diagnose, often confused with other surgical conditions.

CASES

A 30 yrs old female patient was presented with a painful lump on the right lateral aspect of a infra umbilical area three and half years after a caesarean section. The lump associated with pain but no h/o discharges. Abdominal examination revealed a lump about 2 x 3 cm, firm, non tender. On leg raising test it became more prominent that means the lump arose from parietal aspect of the abdomen.

Ultrasound of the abdomen (Figure 1.1) was performed and revealed Hypoechoic lesion of size 2.8x1.8cms in Antr. Abdominal wall rt side preperitoneal plane. This was initially thought to be a stitch granuloma since patient had a cesarian in the recent past. Hence it was initially managed using conservative management techniques; however, the abdominal wall lump persisted and gradually enlarged in size. The patient was posted for a wide local excision of the abdominal wall lump (Figure 1.2). we found that a nodular mass of size 5 cm involving right lower part of rectus sheath and rectus muscle. So excision of mass along with partial excision of part of rectus sheath and muscle were performed. Postoperative period was uneventful. Histopathology showed fibrocollagenous tissue

Case Report

enclosing muscle bundles with many foci of dilated glands surrounded by endometrial stroma F/C/W Endometriosis (Figure 1.3).

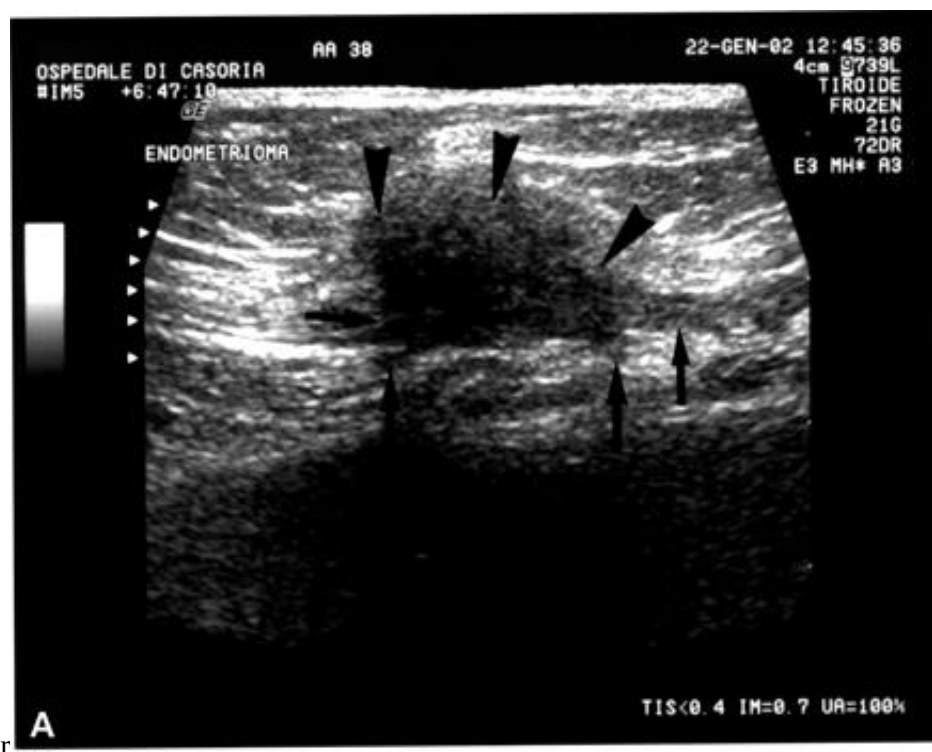


Figure 1.1: Shows the USG image of ENDOMETRIOMA of right rectus muscle and rectus sheath



Figure 1.2: Shows postoperative image of excised lump from the lower abdominal wall

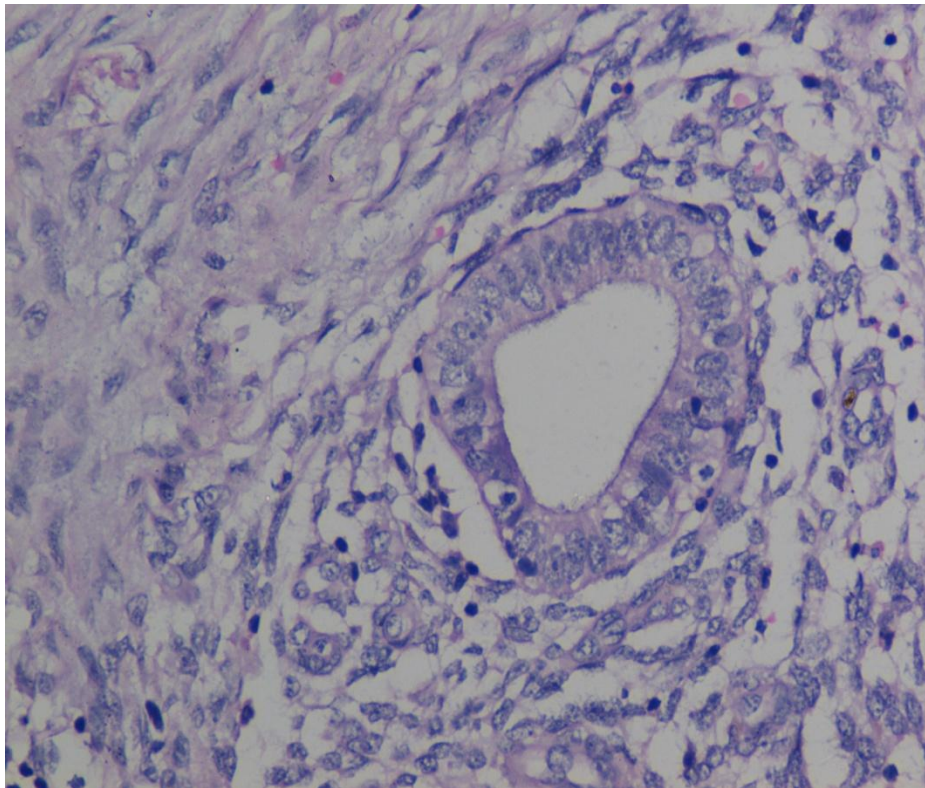


Figure 1.3: Shows the HPE suggestive of Endometrioma

DISCUSSION

Endometriosis is the presence of functioning endometrial tissue outside the uterine cavity, whereas endometrioma is a well-circumscribed mass. The various sites for extra pelvic endometriosis are bladder, kidney, bowel, omentum, lymph nodes, lungs, pleura, extremities, umbilicus, hernial sacs, and abdominal wall (Nirula and Greaney, 2000). Endometriosis involving the abdominal wall is an unusual phenomenon which should be considered in the differential diagnosis of abdominal wall masses in women. The usual clinical presentation is a painful nodule in a parous woman with a history of gynecological or obstetrical surgery. The intensity of pain and size of nodule vary with menstrual cycle. The proposed theories of endometrioma formation are: a) Retrograde spread of collections of endometrial cells during menstruation b) Blood, lymphatic or iatrogenic spread. c) Metaplasia of the pelvic peritoneal cells. d) Immune system dysfunction and autoantibody formation (Wolf *et al.*, 1996). The development of intrapelvic endometriosis may involve retrograde menstruation, maturation of extrauterine primordial cell remnants of embryogenesis and hematologic or lymphatic spread of endometrial cells. Extrapelvic endometriosis in the lung, skin, and extremities not associated with surgical violation of the uterus is believed to be the result of hematogenous or lymphatic spread of endometrial tissue (Somigliana *et al.*, 2006). Scar endometriomas are believed to be the result of direct inoculation of the abdominal fascia or subcutaneous tissue with endometrial cells during surgical intervention and subsequently stimulated by estrogen to produce endometriomas. This theory is convincingly demonstrated by experiments in which normal menstrual effluent transplanted to the abdominal wall resulted in subcutaneous endometriosis. In clinical practice, its occurrence has been well documented in incisions of any type where there has been possible contact with endometrial tissue, including episiotomy, hysterotomy, ectopic pregnancy, laparoscopy, tubal ligation, and cesarean section (Mahmood and Templeton, 1991). Time interval between operation and presentation has varied from 3 months to 10 years in different series (Wolf *et al.*, 1996). In a study by Celik *et al.*, a case was reported with a two year time interval (Blanco *et al.*, 2003). Scar endometriosis is rare and difficult to diagnose. It is often misdiagnosed as stitch granuloma, inguinal hernia, lipoma,

Case Report

abscess, cyst, incisional hernia, desmoid tumor, sarcoma, lymphoma, or primary and metastatic cancer. A high index of suspicion is recommended when a woman is presented with a post operative abdominal lump. Good surgical and gynecological histories, as well as a thorough examination with appropriate imaging techniques (ultrasound, CT or MRI) usually lead to the correct diagnosis. CT usually shows a solid, well-circumscribed mass whereas MRI may be more helpful when the lesion is small because of its high spatial resolution, furthermore it is better than CT scan in detecting the planes between muscles and abdominal subcutaneous tissue.

Management

The treatment of choice is always total wide excision of the lesion, which is diagnostic and therapeutic at the same time. Medical treatment with the use of progestogens, oral contraceptive pills, and danazol is not effective and gives only partial relief in symptoms and does not ablate the lesion. Moreover due to side effects such as amenorrhea, weight gain, hirsutism, and acne, compliance is unlikely. Recently, there have been reports of the use of the gonadotrophin agonist (Leuprolide acetate), but it has been found to provide only prompt improvement in symptoms with no change in the lesion size (Matthes *et al.*, 1998).

Malignant Risk

Malignant change of endometriosis in a cesarean scar is rare (Ideyi *et al.*, 2003). Long-standing recurrent scar endometriosis could undergo malignant changes and clinicians should be aware. Only 21.3% of cases of malignant transformation of endometriosis occur at extragonadal pelvic sites and 4% of cases in scars after laparotomy.

Follow Up and Prevention

Follow up of endometriosis patients is important because of the chances of recurrence, which may require re-excision. In cases of continual recurrence, possibility of malignancy should be ruled out. Hence, good technique and proper care during cesarean section may help in preventing endometriosis.

Conclusion

Overall, general surgeons are infrequently involved in the management of cesarean section scar lesions. Thus, the lack of awareness makes the preoperative diagnosis unnoticed. When the diagnosis is made on clinical grounds, no further studies are necessary before wide surgical excision. However, imaging techniques, laparoscopy and FNAC are indicated towards better diagnostic approach. In the presence of frequent recurrences, malignancy should be suspected, which carries a poor prognosis. Hence we recommend we do have this in our differential diagnosis list before proceed into any lower abdominal lump.

REFERENCES

- Al-Fozan H and Tulandi T (2003).** Left lateral predisposition of endometriosis and endometrioma. *Gynecologic Oncology* **101**(1) 164-166.
- Applebaum GD, Iwanczyk L and Balingit PB (2004).** Endometrioma of the abdominal wall masquerading as hernia. *American Journal of Emergency Medicine* **22**(7) 621-622.
- Bachir JS and Bachir NM (2003).** Scar endometrioma: awareness and prevention. *Wisconsin Medical Journal* **101**(1) 46-49.
- Blanco RG, Parithivel VS and Shah AK et al., (2003).** Abdominal wall endometriomas. *The American Journal of Surgery* **185**(6) 596-598.
- Chatterjee SK (1980).** Scar endometriosis: a clinicopathologic study of 17 cases. *Obstetrics & Gynecology* **56**(1) 81-84.
- Gupta RK, Green C and Wood KP (2000).** Fine needle aspiration cytodiagnosis of endometriosis in an abdominal scar after Caesarean section. *Cytopathology* **11**(1) 67-68.
- Ideyi SC, Schein M and Niazi M et al., (2003).** Spontaneous endometriosis of the abdominal wall. *Digestive Surgery* **20**(3) 246-248.
- Koger KE, Shatney CH and Hodge K et al., (1993).** Surgical scar endometrioma. *Surgery, Gynecology, and Obstetrics* **177**(3) 243-246.

Case Report

Mahmood TA and Templeton A (1991). Prevalence and genesis of endometriosis. *Human Reproduction* **6**(4) 544-549.

Matthes G, Zabel DD and Nástala CL et al., (1998). Endometrioma of the abdominal wall following combined abdominoplasty and hysterectomy: case report and review of the literature. *Annals of Plastic Surgery* **40**(6) 672-675.

Minaglia S, Mishell DR Jr and Ballard CA (2007). Incisional endometriomas after Cesarean section: a case series. *The Journal of Reproductive Medicine* **52**(7) 630-4. PMID: 17847762 [PubMed].

Nirula R and Greaney GC (2000). Incisional endometriosis: an underappreciated diagnosis in general surgery. *Journal of the American College of Surgeons* **190**(4) 404-407.

Somigliana E, Vigano P and Parazzini F et al., (2006). Association between endometriosis and cancer: a comprehensive review and a critical analysis of clinical and epidemiological evidence. *Gynecologic Oncology* **101**(2) 331-341.

Wasfie T, Gomez E and Seon S et al., (2002). Abdominal wall endometrioma after Cesarean section: a preventable complication. *International Surgery* **87**(3) 175-177.

Wolf Y, Haddad R and Werbin N et al., (1996). Endometriosis in abdominal scars: a diagnostic pitfall. *The American Surgeon* **62**(12) 1042-1044.