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Surgical Scar Swelling Surprises Surgeons with Endometriosis

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ABSTRACT

With a reported incidence of 0.03%–3.5% Abdominal Wall Endometriosis (AWE) is a rare entity. A 32year old female who presents with a 3x3cm lump over the right inguinal region since one year, just along the scar of the previous caesarean section, done 18 months back. With an increase in size in the last 6 months, there was a classical history of cyclical pain. USG abdomen confirmed it as an isoechoic lesion within the muscle plane. FNAC showed glandular epithelial cells in clusters within spindle cell. Forming an example of "Iatrogenic Direct Implantation Theory" of AWE, a wide surgical excision with 1cm clear margins was done; wherein the mass was seen limited in the musculo-fascial planes; with primary closure of the defect. Diagnosis was confirmed on Histopathology. The patient currently remains asymptomatic in the 6 months of post-operative follow up with no signs of recurrence.

KEYWORDS :Scar Endometriosis, Caesarean Section, Abdominal Wall Mass

INTRODUCTION

With a reported incidence of 0.03%–3.5%, Abdominal wall endometriosis (AWE) is a rare type of extrapelvicextraperitoneal endometrial deposits especially after surgical procedures such as cesarean delivery, hysterotomy, hysterectomy,episiotomy, ectopic pregnancies, and laparoscopy. [1,2]

We report a case of a 32 year old female who presented with aendometrioticswelling at the LSCS scar.

CASE REPORT

A 32year old female who presents with a swelling over the right lower abdomen since one year, associated with a classical history of cyclical pain. There is history of on and off low grade fever. The swelling increased in size in the last 6 months with no proportional increase in pain. There were no other swellings anywhere else on the body. There is no history of any recent trauma but there is history of a Lower Segment Caesarean Section, done 18months back. On examination there is a 3x3cm lump over the right inguinal region,just along the scar of the previous caesarean section(Figure 1). The mass is nontender, with no local rise of temperature, ill defined, soft with smooth surface, irregular borders and non compressible. The mass was mobile in both horizontal and vertical directions but on leg raising test it became more prominent and had restricted mobility. USG abdomen confirmed it as an isoechoic lesion within the muscle plane. FNAC showed endometrial glandular epithelial cells in clusters within spindle cell stroma (Figure 2).

Figure 1: Palpable lump along the right lateral of the caesarean section scar

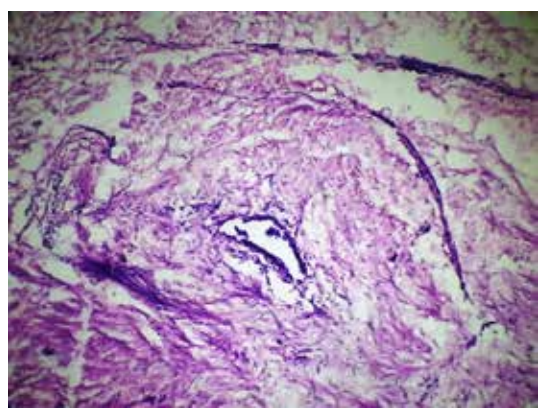

Figure 2: FNAC picture showing endometrial gland surrounded by spindle cell stroma

These investigations suggest the swelling to be of endometrial origin arising from the scar of previous caesarean section. Forming an example of "Iatrogenic Direct Implantation Theory" of Abdominal Wall Endometriosis, a wide surgical excision with 1cm clear margins was done; wherein the mass was seen limited in the musculo-fascial planes; with primary closure of the defect (Figure 3). The histopathology of the excised lump confirmed the diagnosis. The patient currently remains asymptomatic in the 2 months of post-operative follow up with no signs of recurrence.

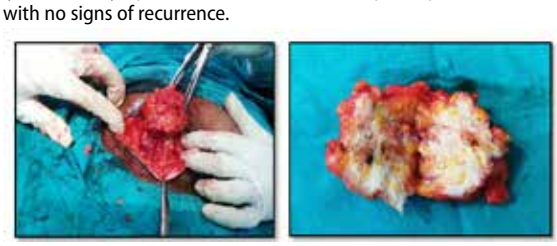

Figure 3: Intra-operative finding of the lump seen limited to the musculo-fascial planes; with the cut section

DISCUSSION

Previous surgical scar on the abdominal wall is generally in favour of a hematoma, abscess, lipoma, implantation dermoid, sebaceous cyst, stitch granuloma, incisional hernia or a tumour.

In the etiology of AWE, apart from lymphatic or hematogenic dissem-

ination or the coelomicmetaplasia, "Iatrogenic Direct Implantation Theory", suggests that endometrial cells escapethrough an incision made in the uterus during the surgical procedureand are implanted within the abdominal wound. [2,3]The most common surgeries associated with AWE are Cesareansection and hysterotomy; with the reported incidence of 0.03% to 1.08% after caesarean delivery[3,4]. According to Esquivel-Estrada et al.diagnosis of AWE shouldbe based on 3 symptoms: a tumor mass inside or near the surgical scar, pain accompanying the menstrual cycle and a previous history of agynaecologic surgery. [5] These patients may first report to general surgeons or dermatologists, where in rare cases of Extrapelvic Endometriosis may result in delay in diagnosis.[6,7]

MRI is the investigation modality of choice but Ultrasonography is the most accepted modality owing to its low cost and easy availability. [6] Fine-needle aspiration cytology is controversial because theoretically it has the potential to implant endometrial cells further at the puncture site. [7,8]

1% of patients with endometriosis may even have malignant transformation to develop endometriosis-associated neoplasms, most commonly clear-cell carcinoma. [9]

Thus a wide surgical excision with adequate clear margins is the treatmentof choice for AWE. Medical therapy alone with hormones has low success rates and can cause relapse. [10]A combination of surgical re-excision and postoperativeadjuvant medical therapy is recommended for patients withrecurrent AWE

Yan Ding, Jin Zhu stress onsome strategies forpreventing AWE by implantation theory: like using a wound edge protector to separatethe edges of the incision, careful flushing and irrigating beforeclosure, suturing the uterine incision without involving the endometrium, usingseparate needles for uterine and abdominal closure, not using asponge to clean the endometrial cavity following complete deliveryof the placenta, removing a functional corpus luteum simultaneouslywith a hysterectomy [2,3,4,11]and extending the breastfeeding periodto delay menstruation, [12]

CONCLUSION

AWE is a rare disease entity; with a rising incidence in view of the increasing number of cesarean deliveries. Thus increased awareness among physicians, surgeons and dermatologists is required to include AWE in the differential diagnosis forfemales of reproductive age complaining of mass or pain in or aroundthe abdominal scar after a gynaecological surgery.

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