RECTUS SHEATH ENDOMETRIOSIS IN CAESAREAN SCAR
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ABSTRACT: Endometriosis is a commonly encountered gynecological problem. Here we present a case report of rectus sheath endometriosis following caesarean section which is a rare presentation. Patient presented with pain over the scar area which was cyclical and associated with regular menstrual cycles. Imaging with ultrasonography showed collection in between subcutaneous and muscular planes. She was provisionally diagnosed as a case of scar endometriosis and was planned for wide excision under general anaesthesia. Histopathology study confirmed the diagnosis of endometriosis of rectus sheath.

KEYWORDS: Endometriosis, rectus sheath, scar, caesarean, excision.

INTRODUCTION: Endometriosis is defined as the presence & proliferation of the endometrium outside the uterine cavity¹. The most common site of abdominal wall endometriosis is at a caesarean section scar. Incidence of surgically proven scar endometriosis is approximately 1.6 %², as found in a study. Endometriosis is most commonly seen in the abdominal skin & subcutaneous tissue in patients with caesarean scars. It is often confused with numerous surgical conditions. It is very difficult to diagnose a case of scar endometriosis considering its rarity. Very rarely scar endometriosis can be seen in the rectus abdominis muscle³ or the sheath only⁴. Here we are reporting a rare case of scar endometriosis of the rectus sheath.

CASE REPORT: Mrs SL, a 27 year old female presented with complaints of cyclical pain over the lateral part of abdominal scar since 5 months. She was para 3 with 3 previous caesarean sections. No H/O any discharge or lump at the site. Pain & tenderness at the site appeared cyclically during menstrual cycle. Abdominal examination revealed tender fluctuating mass just at the scar site, measuring 3 cm x 2 cm. Ultrasonography was done & a heterogenous collection seen in the muscular & subcutaneous plane measuring 36x 20x 31 mm present over the anterior abdominal wall in suprapubic region.

In view of increasing intensity of pain, patient was posted for a wide local excision under general anaesthesia. Intra operatively, typical bluish black endometriotic spots as powder burn appearance & a small collection of anchovy sauce like fluid seen on the rectus sheath at the lateral part of the scar and also in the subcutaneous fat. Wide excision of the rectus sheath with endometriotic spots was done & sent for HP study.

Histopathological examination showed endometrial glands and stroma interspersed with fibrofatty and fibrocollagenous tissues (refer to Figure 3). Hence diagnosis of endometriosis of rectus sheath was confirmed.

DISCUSSION: Endometriosis is defined as the presence of functioning endometrial tissue outside the uterine cavity. The various sites of extrapelvic endometriosis are bladder, kidney, bowel, omentum, lymph nodes, lungs, pleura, extremities, umbilicus, hernia sacs & abdominal wall⁵. Abdominal wall
endometriosis is a very rare entity. Usually patients present with a painful mass at the scar site following an obstetric or a gynaecological surgery. The intensity of symptoms vary cyclically with the menstrual cycles.

**Pathophysiology:** Pelvic endometriosis is postulated to be the result of
- Retrograde spread of endometrial cells during menstrual cycle
- Haematogenous, lymphatic or iatrogenic spread
- Metaplasia of pelvic peritoneal cells
- Autoantibody formation & immune system dysfunction
- Extrapelvic endometriosis is postulated to be the result of haematogenous or lymphatic spread of endometrial tissue.

Scar endometriosis is believed to be a direct result of inoculation of endometrial cells into the abdominal wall at the time of surgical intervention. Later, under the influence of oestrogen, endometriomas are formed from these cells. This theory has been convincingly proved by experiments wherein endometrial tissues transplanted in the abdominal wall resulted in subcutaneous endometriosis. In clinical practice, it is encountered in incisions wherever there is a probability of contact with endometrial tissue as in episiotomy, hysterotomy, ectopic pregnancy, laparoscopy, tubal ligation & caesarean section. Time interval between surgery & presentation varied from 3 months to 10 years in different studies.

**Diagnosis:** It is very difficult to diagnose a case of scar endometriosis considering its rare nature. It is easily confused with stitch granuloma, inguinal hernia, lipoma, abscess, cyst, incisional hernia, desmoid tumour, sarcoma, lymphoma, primary or metastatic cancer.

A post operative lump at the scar site should be thoroughly evaluated keeping a high index of suspicion. Good surgical & gynaecological history compounded with thorough examination & appropriate imaging techniques like USG, CT & MRI, usually lead to the correct diagnosis. CT usually shows a well circumscribed solid area whereas MRI is more useful because of its high spatial resolution.

**Management:** The treatment of choice is wide local excision which is both diagnostic as well as therapeutic. Medical treatment with progestogens, oral contraceptive pills, danazol etc have not shown effective results. They only bring about partial relief of symptoms but complete resolution of pathology is not seen. Patient compliance is poor with side effect like amenorrhea, acne, hirsutism & weight gain. Recently GnRH analogues like leuprolide acetate are being used but it only provides immediate relief of symptoms rather than decreasing the size of the lesion.

**Risk for malignancy:** Malignant change in scar endometriosis is a very rare. Long standing recurrent endometriotic scars can undergo malignant transformation.

**Follow up & prevention:** Follow up of endometriosis patient is very important considering the chances of recurrence, which may require re-excisions. Possibility of malignancy must be ruled out in continuously recurring lesions. A good technique & proper care during caesarean section goes a long way in preventing scar endometriosis.
CONCLUSION: Scar endometriosis as such is difficult to diagnose because of its rarity & is usually unnoticed preoperatively. It is usually diagnosed on clinical grounds after which, the only treatment of wide local excision is feasible. Imaging techniques, laparoscopy & FNAC aid in better diagnostic approach. Frequent recurrences indicate malignant transformation and a poor prognosis.

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