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Case Report

Painful scar endometriosis after caesarean section

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ABSTRACT

Scar endometriosis is an extremely rare phenomenon. We presented a case of scar endometriosis in a thirty one year old patient (P2L2) who developed swelling and cyclical pain in the previous suprapubic caesarean scar (of previous two caesarean sections) area lasting for 10 days every month for last 2 years. On abdominal examination she had a small swelling at right margin of the wound which was firm and tender on examination with dull aching constant pain at the site of examination. This pain used to aggravate with menses. Investigations suggested scar endometriosis and she was treated medically with oral contraceptives and GnRH but symptoms recurred on stopping the treatment. Patient underwent surgery. A dense fibrotic tissue of 5×4×5 cm size including the rectus sheath, part of rectus muscles and subcutaneous tissue was found on the right side of the old previous scar beneath the skin which was excised and sent for histopathological examination which reconfirmed the diagnosis of scar endometriosis with presence of glands and stroma in the excised tissue. Post-operative period was uneventful.

Keywords: Scar endometriosis, Painful, Caesarean section, Oral contraceptives, GnRH analogues

INTRODUCTION

There are many forms of endometriosis and scar endometriosis is called when features of extra pelvic endometriosis are found and this entity can be confused with common surgical and dermatological conditions and thus, lead to delay in the diagnosis. However, extra pelvic endometriosis is a rare condition.[1] At present, no absolute incidence rate of scar endometriosis following a caesarean section has been observed. The rates may range from 0.03-1.73% with an average rate of 0.50%.[2] Research reports in the literature points to the fact that endometriosis may be found in surgical scars following the surgeries namely laparotomy, laparoscopy and diagnostic obstetric procedures such as amniocentesis puncture.[3] Furthermore, this disease is also related to surgery performed by general surgeons such as appendectomy, groin and umbilical hernia corrections.[4,5] However, most of the cases reported have occurred following obstetric procedures that exposed the endometrial tissue, especially in cases of caesarean section.[6-8] The ectopic tissue responds to ovarian hormonal stimulation and tends to proliferate when stimulated by cyclic estrogens seeming to menstruate, as described by the German pathologist Carl von Rokitansky who found endometrial glands in the myometrium and designated this finding as cystosarcoma adenoids uterinu.[9,10]

CASE REPORT

Thirty-one-year-old female, P2L2, wife of a serving soldier, reported to gynaecology department of a hospital located in Kirkee region, Pune in the month of June 2020, with chief complaints of swelling and cyclical pain in the previous caesarean scar area lasting for 10 days every month for last 2 years.

Obstetrical history: she was P2L2, with suprapubic transverse scar of previous two lower segment caesarean section. Post-operative period was uneventful.

She was examined at that time and USG report suggested scar endometriosis (33.7×51.7×13.6 mm hypo echoic vascular mass lesion). She was given injection GnRH 11.25 mg stat and after that she was put on oral contraceptive pills. Tricycling treatment with oral contraceptive pills was started and withdrawal bleeding used to happen every 3 months. Patient responded for few months but again she became symptomatic on stopping the treatment.

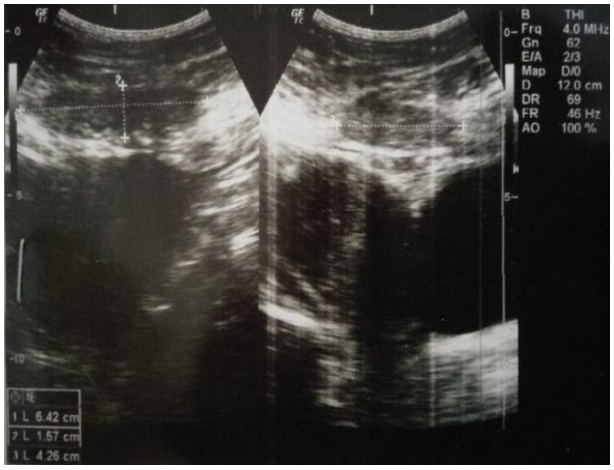

Figure 1: USG report.

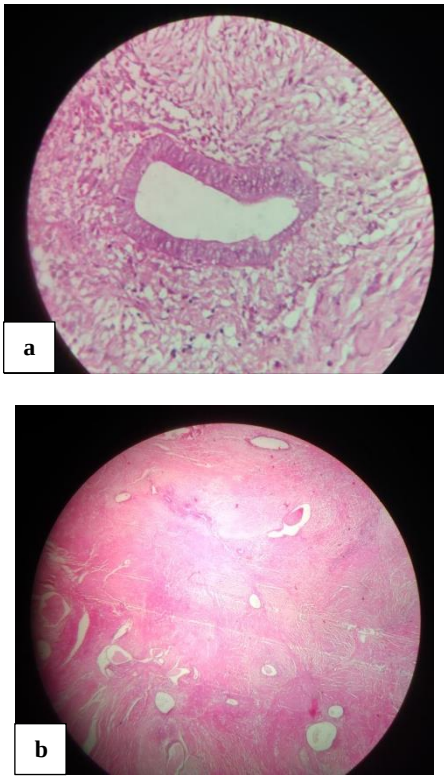

Figure 2 (a and b): Histopathological images of excised specimen of scar endometriosis showing glands and stroma interspersed in adipose tissue.

Then she visited OPD of gynae department in Lucknow, India in the month of October 2021 with the same complaint of swelling and pain at scar area during menses. She was thoroughly evaluated and examined. On general examination no abnormality was detected. On abdominal examination she had a small swelling at right margin of the wound which was firm and tender on examination with dull aching constant pain at the site of examination. This pain used to aggravate with menses. This pain used to get relieved for some duration on taking analgesics. A probable diagnosis of scar endometriosis was made based on findings of clinical examination. Further ultrasound examination findings showed 54×11 mm ill defined, hypo echoic and transversely oval lesion situated deep to the subcutaneous plane and involving the rectus muscle layer (Figure 1). Lesion also showed some vascularity inside. With history of failed medical treatment, a probable clinical diagnosis of scar endometriosis and the investigations also pointing towards the same disease patient was taken up for surgery on 21 November 2021.

Ultrasound report showed a well-defined heterogeneously hypo echoic lesion involving posterior aspect of rectus abdominis above its caudal attachment and measures 16×64×43 mm (APXTRXCC). The lesion was located in right paramedical region and extended across midline to left side. Tiny anechoic areas were seen within this lesion.

Diagnosis was made of scar endometriosis.

Intra-operative findings

A dense fibrotic tissue of 5×4×5 cm size including the rectus sheath, part of rectus muscles and subcutaneous tissue was found on the right side of the old previous scar beneath the skin. While dissecting this fibrotic tissue chocolate coloured fluid came out from multiple areas suggesting the diagnosis of scar endometriosis. This tissue was also found crossing midline and started involving the left side of rectus tissues also. This fibrotic tissue was excised thoroughly till clear margins of 1 cm of rectus sheath created. Rectus sheath developed on both sides by mobilising the subcutaneous tissues beneath the skin on both upper and lower flaps of rectus sheath. After this rectus sheath was closed without the tension on suture lines. The excised tissue was sent for histopathological examination and rest of the layers of abdomen closed in succession. Skin was closed with subcuticular stitches with monocryl 3-0 suture. Post-operative period was uneventful. Patient was discharged from hospital on 25 November 2021.

Follow up

Post-operative period was uneventful and wound healed well without any complications. Patient was given 3 doses of injection zoladex (GnRH analogue) 3.6 mg subcutaneously at monthly intervals in the follow up period. This patient was asymptomatic and pain free at present. The HPE report also reconfirmed the diagnosis of scar endometriosis with presence of glands and stroma in the excised tissue (Figure 2).

DISCUSSION

Scar endometriosis was least reported entity in the gynecological literature and it usually presented in women who had undergone a previous abdominal or pelvic operation.[11] The incidence varied from 0.03% to 0.15% in all cases of endometriosis.[12,13] Many studies have found that this disorder usually presented in the age group of 25-45 years in 75% of symptomatic patients.[14] Many theories have tried to explain the genesis and causative factors of scar endometriosis; however, the most accepted theory was the iatrogenic transplantation of endometrial implants and functional endometrium to the wound edge while doing an abdominal or pelvic surgery.[12,13,15,16] This endometrium later was stimulated by oestrogen to produce endometriosis. Common presenting feature was pain which was classically described as cyclic pain (pre or perimenstrual worsening of abdominal pain) but constant and non-cyclic pattern also have reported as was seen in our case. [1,17,18] Interval between the surgical procedure and presentation of symptoms of scar endometriosis varied from months to years (3 months to 10 years) in various cases.[1,17,18] In our case, the median interval was 2 years. Diagnosis can be made from clinical history and physical examination of patient in classical presentation of a case of scar endometriosis.[19] Investigations like ultrasonography further clarified the nature of lesion (solid or cystic) and delineated its margins into abdominal wall tissues.[20] But to establish a reliable preoperative diagnosis Doppler sonography, CT scan, MRI and FNAC may further help in establishing exact dimensions of the lesion and to rule out any malignancy or intra-abdominal tissue involvement.[21,22]

The first line treatment was medical therapy with hormonal agents but usually it was ineffective in scar endometriosis and *en-bloc* resection of the scar endometriosis tissue with 1 cm of clear margin was the acceptable treatment.[23-26] In this process if a great part of rectus sheath and muscle was lost then to prevent incisional hernia later, mesh overlay technique can be used at the time of rectus sheath closure during resection of scar endometriosis.[27,28]

CONCLUSION

Scar endometriosis is an uncommon disorder. It most commonly occurs following caesarean section among the all gynaecological surgeries. That's why surgeon should always be cautious about iatrogenic transplantation of endometrial tissue during caesarean section. The diagnosis is done by typical manifestation of the disease and ultrasound is good enough to reinforce the preoperative diagnosis. To improve the detection rate and to reduce the number of referrals; a high index of suspicion is required, and more emphasis is given on the clinical history and physical examination of the patient. Medical treatment may be tried but surgical resection is the mainstay of treatment. Post-operative diagnosis is confirmed by the histopathology report of the excised specimen as in our case. After the surgery medical treatment may be given to prevent recurrence of the disease in post-operative period.

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