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Case Report

Abdominal scar endometriosis-a dilemma in diagnosis

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ABSTRACT

Abdominal scar endometriosis is a rare disease with an incidence of 0.03-0.15%. Its diagnosis is often confused with other conditions like hematoma, granuloma, keloid, incisional hernia and vascular malformation. We are reporting two cases of abdominal scar endometriosis with some diagnostic dilemmas. In first case it was previously reported as stitch granuloma due to atypical clinical presentation. In second case CT scan reported it to be a likely neoplastic lesion. In both the cases, wide excision of the lesion with a safe margin was planned and was further confirmed by histopathology. On follow up both patients are currently asymptomatic.

Keywords: Scar endometriosis, Wide excision, Diagnosis, Histopathology

INTRODUCTION

Scar endometriosis is an infrequent type of extra pelvic endometriosis that is rather close with obstetrical and gynaecological surgeries incision site. It is mostly confused with other dermatological or surgical conditions which delays its diagnosis.

Endometriosis is defined as the presence of endometrial glands and stroma outside the endometrial cavity.[1] It usually occurs in females of reproductive age.[2] It can be of two types pelvic and extra pelvic. Pelvic sites are ovaries, uterosacral ligament, bladder, posterior Cul-de sac, bowel, rectovaginal septum. The extra pelvic sites include urinary tract, thorax, nervous system, caesarean scar site.[3] Caesarean scar endometriosis is a very rare condition, its incidence being reported just 1%.[4,5] It is often difficult to diagnose and most of the time patient visits general surgeon.[2,6] Mostly it is diagnosed after surgical excision and confirmed by HPE reports.[7]

We are reporting two cases of abdominal scar endometriosis in which initially diagnosis was missed and were referred to us for further management.

CASE REPORT

Case 1

A 30-year female with history of one caesarean section presented with complaints of pain at previous abdominal caesarean scar site since last one year. She also presented with abnormal uterine bleeding with excessive flow during menses and frequent cycles. Her caesarean was done 6 years back and was uneventful. There was no cyclical pattern in her pain at scar site and was not aggravated during menses which was contrary to cyclical pain in scar endometriosis. On palpation a 2.5 cm nodular lesion on right lateral end of scar was felt, it was freely mobile and tenderness was present. She consulted a surgeon who suspected it to be a stitch granuloma due to non-cyclical pain (Figure 1).

The high-resolution ultrasound at our centre reported a nodular hypoechoic lesion along the anterior abdominal wall at the scar site towards right side 15×10 mm most likely endometriotic deposit. Though the lesion was small, still the patient was in excruciating pain. Hence, we planned surgical excision of the lesion along with diagnostic laparoscopy to rule cut cut any abdominal

endometriosis. Pre-operative workup of the patient was done.

Per-operative findings

On laparoscopy we found endometriotic patches present over pouch of Douglas and right lateral wall of uterus. Uterus, bilateral tubes and ovaries appeared grossly normal. Excision of these lesions were performed.

Then we opened the abdomen after excising the previous scar, a 2×2 cm endometriotic nodule was found just above the rectus sheath, excision of the nodule with extra margins of about 1.5 cm was done and tissue was sent for biopsy and abdominal closure done in layers. We also inserted LNG IUCD per vaginally in our patient because in her transvaginal ultrasound adenomyosis was suspected and she was AUB. Patient discharged two days after surgery and on follow up she was completely relieved of her pain. Histopathology report revealed endometriosis in excised tissue.

Case 2

A 28 years old female with previous two caesarean sections reported in our outpatient department with complains of pain and swelling in her previous caesarean scar site (Figure 2). Her pain was cyclical in pattern which increased during menses. One year after the onset of pain she started feeling some swelling in the centre of her scar site, and bleeding was also there from scar site. A clinical diagnosis of scar endometriosis was made and was given tab Dinogest for three months. But her symptoms didn't improve. She was also advised CT scan at some other hospital which reported a well-defined heterogeneously enhancing lesion 5×4.5 cm in subcutaneous plane on anterior abdominal wall showing neoplastic changes, uterus and ovaries were normal, and she was referred to higher centre. In our hospital we ordered an MRI which showed there was a well-defined heterogenous soft tissue mass lesion with interspersed haemorrhagic foci in the anterio- inferior abdominal wall in the midline at the site of caesarean scar, the lesion was adherent to the adjacent rectus abdominis muscle and no intrabdominal extension was seen. The size of abdominal wall lesion was 4.7×3.9×5 cm, MRI suggested a possibility of scar endometriosis.

Followed by clinical and radiological evaluation we planned wide surgical excision of lesion.

Per- operative findings-A 7×6 cm whitish hard mass fixed to rectus sheath was found, affected rectus muscle was also excised (Figure 3). Excision of mass done followed by closure of rectus muscle and rectus sheath and as defect was tension free, we didn't use mesh (Figure 4). Skin closure was done by mattress suture.

Her post operative period was uneventful. We discharged the patient on 4th post operative day. Total stich removal was done on 9th post operative day (Figure 5). Her HPE reports also confirmed our diagnosis of scar endometriosis (Figure 6).

On follow up, in her subsequent menstrual cycle there was no pain and bleeding from scar site.

Figure 1: A nodular lesion on right side of abdominal scar (case 1).

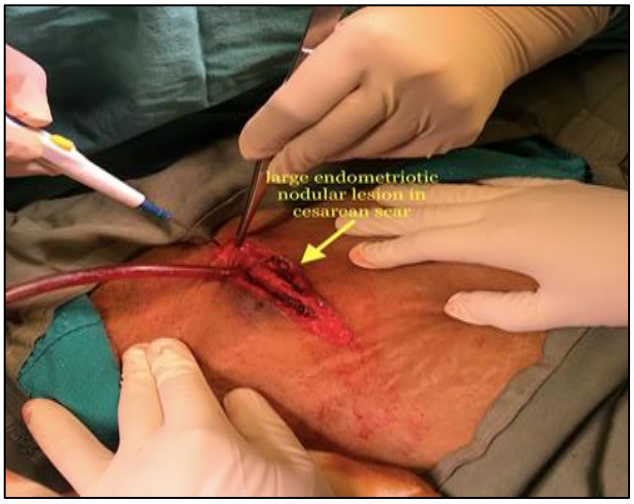

Figure 2: A large highly painful lesion in centre of caesarean scar was present (case 2).

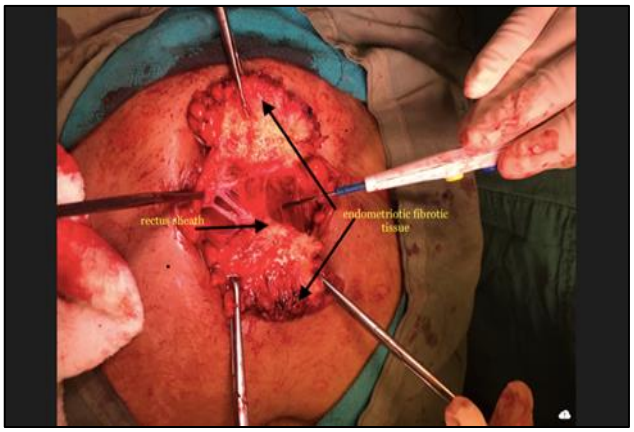

Figure 3: Complete layer wise excision of large lesion with a safety margin which was extending upto rectus sheath (case 2).

Figure 4: As defect in sheath was not large, rectus sheath closed primarily.

Figure 5: After stich removal.

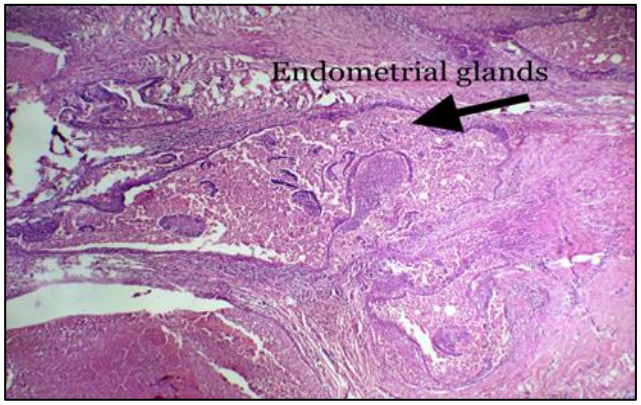

Figure 6: Histopathology of endometrial glands and stroma with areas of necrosis and hemosiderin.

DISCUSSION

Scar endometriosis usually follows previous abdominal surgery most commonly early hysterectomy and caesarean section.[8] Though literature says its rare with only 1% incidence. Frequency of scar endometriosis has increased in recent years due to increase in number of caesarean sections and laparoscopy.[9] There are several theories which explain the pathogenesis of endometriosis at these sites but the most plausible theory for scar endometriosis is direct mechanical implantation theory. The endometrial tissue might be seeded into the wound during caesarean section and over a period of time under hormonal influences these cells proliferates.[10] However, direct implantation of endometrial tissue cannot explain all the cases because there are few cases of primary cutaneous endometriosis like endometriosis of vulva, perineum, groin, umbilicus, extremities and nasolacrimal locations as these cases has not undergone prior abdominal surgery.[11] The diagnosis of endometriosis is sometimes difficult as patient first presents to surgeon or dermatologist and sometimes it is often misdiagnosed as lipoma, hematoma, hernia, abscess.[12] Therefore careful history regarding previous abdominal surgery and physical examination should be done to make clinical diagnosis, and scar endometriosis should be taken in consideration while making the diagnosis. The patient presents with mass near previous scar with pain which is usually cyclical in nature.[13] Sometimes the patient may not have a cyclical pain as in largest reported series till date the only 20% patients exhibited these symptoms.[14]As per many studies the time interval between surgery and presentation varies between 3months to 10 years. In our cases also the interval between surgery and presentation was 10 years.[15]

There are various modalities for the diagnosis of scar endometriosis like ultrasound, computed tomography, magnetic resonant imaging.[16,17] Role of Doppler sonography and fine needle aspiration cytology is still unclear in the diagnosis.[18] However the gold standard modality for diagnosis is histopathology. It is diagnosed by presence of endometrial glands, stoma and hemosiderin pigments.[19]

The treatment of choice for this condition is wide local excision with at-least 1.5 to 2 cm margin.[20] Medical therapy is also available but recurrence is common and most often they are ineffective, as in our case patient took medical treatment but didn't get relieved.[21] The incidence of concomitant pelvic endometriosis has also been reported in 14.3% to 26% of cases and ideally all patients should be examined for concomitant pelvic endometriosis.[22,23] Therefore we also did diagnostic laparoscopy in our case because she complained of severe abdominal pain and abnormal uterine bleeding which lead to suspicion of pelvic endometriosis, and our suspicion came true as we found associated pelvic endometriosis in our case.

CONCLUSION

Abdominal scar endometriosis is a rare entity, its diagnosis may be delayed or missed because of some atypical presentation. A high grade of suspicion followed by en bloc excision and histopathology is the key.

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