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Scar Endometriosis - A Rare Cause for A Painful Scar

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Abstract

Scar endometriosis is a rare form of extra pelvic endometriosis that is usually confused with other surgical or dermatological conditions leading to delay in diagnosis. In our study we are reporting a case series of 6 patients presenting with the diagnosis of scar endometriosis seen in our hospital from January 2008 to December 2016. We found six patients of scar endometriosis in a period of 9 years making it one of the rare conditions. The mean age of the patients was 32 years (range 28 to 37 years) and median interval from symptoms to treatment was 2 years (range 2 to7 years). Cyclic pain and swelling at local site were the most common presenting symptoms. Diagnosis is made by ultrasonography and FNAC lesion. All patients underwent wide excision of the lesion with no recurrence of symptoms at a follow up ranging from 9 months to 12 years. Post operative diagnosis was confirmed by histopathology. Increasing awareness of this condition among doctors would help in accurate diagnosis. This not only avoids delay in diagnosis but also helps in providing effective management.

Keywords: Gynaecology, Scar Endometriosis, painful scar, rare

Introduction

Endometriosis is defined as the presence of functional endometrial glands and stroma outside the uterine cavity. It can be pelvic or extra pelvic endometriosis. Extra pelvic endometriosis is a rare condition where endometriosis seen outside the pelvic cavity in various sites like kidneys, ureter, abdominal organs, lungs and pleura. Previous surgical scar on the abdominal wall is a rare site of extra pelvic endometriosis that is usually confused with abscess, lipoma, hematoma, sebaceous cyst, stitch granuloma, incisional hernia or other tumors ⁽¹⁾⁽³⁾ resulting in delay in diagnosis. These patients may first report to general surgeons or dermatologists because of atypical presentation and thus it is important to increase awareness of this condition among doctors. Incidence of scar endometriosis after caesarean section is around 0.03% to 0.4% ^{(2), (3)}.

Case Reports

It is a retrospective study conducted in a tertiary care hospital. Six cases records of scar endometriosis were searched in the central records department of the hospital from 2008 to 2016. The baseline information, investigations, operative details were recorded on the proforma.

Case1:

A 32years old female paralliving1 with history of 1 previous lower segment caesarean section (LSCS) 2 years back came with the complaints of pain and swelling of around 2cm at the left side angle of the abdominal scar site. The patient was apparently alright for 9 months post LSCS after when she noticed the above symptoms which aggravated during menstrual period. She consulted a general surgeon for the same for which fine needle aspiration done and sent for cytology. Cytopathology showed scar endometriosis for which the patient was referred to gynaecology department for further management. Wide local excision was done and sent for histopathology and the diagnosis was confirmed. The patient followed up and there was no recurrence.

Case2:

A 37-year-old para3 living 2 with history of 2 previous LSCS reported with complaint of swelling of around 1.8 to 2 cm in the pfannensteil scar site since 8months. She noticed a

swelling 5 months after second LSCS and reported to a gynecologist for the same. She does not have any complaints of pain or increase in the size of the swelling in relation to menstrual cycle. Patient was sent for ultrasonography which showed scar endometriosis. Patient underwent wide local excision and followed up for a period of 8 years. No recurrence reported. Histopathology confirmed the diagnosis of scar endometriosis. Case 3:

A 33-year-old para2 living 2 with post LSCS with bilateral tubal ligation 3 years back came with complaints of cyclical pain and swelling of about 3cm in the surgical scar site since 4 months. Patient complained of persistent pain in the swelling which aggravated during menses. She reported to us with the above complaints for which ultrasonography done which showed scar endometriosis. Patient was taken for wide local excision in which part of rectus sheath was also excised. Rectus sheath defect repair done with prolene mesh. Patient followed up with no recurrence. Histopathology confirmed the diagnosis. Case4:

A 32-year-old paral living1 with history of previous 1 LSCS 4 years back complained of swelling around 2 to 3cm in the surgical scar for 2 years. No complaints of pain in the swelling or increase in the size of the swelling in relation to menses. Patient consulted a dermatologist from where she was referred to a general surgeon in suspicion of lipoma. She underwent partial resection of the mass and tissue sent for histopathology suggested of scar endometriosis. Patient was referred to us in view of histopathology showed scar endometriosis for further management. Wide local excision of the mass done and patient followed for a period of 5 years without recurrence. Case5:

30 years old para2 live2 with 2 previous LSCS came with complaints of swelling of about 1.8 to 2cm in the scar site for 2 years. No complaints of pain or increase in the size of the swelling. She consulted a general surgeon for which FNAC was done. Cytopathology suggested scar endometriosis for which patient was referred to a gynecologist for definitive management. Patient underwent wide local excision with clear margins. Histopathology confirmed the diagnosis and patient followed up for 2 years and no recurrence reported.

Case 6:

A 28-year-old paral livel post LSCS 2 years back came with complaints of cyclical pain and swelling in scar site since 6 to 7 months. She reported with a swelling of around 3 to 4cm in the right side of the scar. Symptoms aggravated during menses. Ultrasonography suggested of scar endometriosis. On exploration rectus sheath was found involved for which part of rectus sheath removed and prolene mesh placed. Patient was followed up for 9 months and no recurrence reported.

Discussion

Endometriosis is a complex, multisystemic and chronic gynecological disorder affecting women globally. Scar endometriosis is a rare manifestation of extra pelvic endometriosis. The clinical diagnosis of abdominal wall endometriosis described by Esquivel triad includes palpable tumor, periodic pain and a history of lower segment caesarean section ⁽¹⁾. In our study two patients were initially reported to general surgeon with a diagnosis of stitch granuloma and lipoma. One patient reported to a

dermatologist and was subsequently referred to us. Our one patient had incomplete resection of the mass and two underwent FNAC before being referred. Review of histopathology of the specimen revealed diagnosis of endometriosis. Our three patients presented with complaints of swelling; periodic pain associated with menses while the others had complaints of only swelling at the local site. The lesion was present at cesarean section scar site in all patients. The median interval from initial surgery to symptoms was 2 years. The average size of lesion was 2.5cm. Preoperative diagnosis was made on FNAC (fine needle aspiration cytology) in 2 patients. Ultrasound (USG) of the mass which could be done only in 3 patients suggested the diagnosis of scar endometriosis. One patient had partial resection of mass. All patients underwent wide excision of the endometriomas. Two patients required grafting with prolene mesh as on surgical exploration rectus sheath was also found to be involved. The diagnosis was confirmed on histological examination in all patients. All patients had follow-up ranging from 9 months to 10 years without any recurrences.

According to De Oliveira et al study-risk factors are obstetric surgical procedures, Increased menstrual flow and Alcohol consumption ⁽⁴⁾. One postulated mechanism for scar endometriosis is mechanical transplantation of endometrial implants into the wound during surgical procedure and subsequent stimulation by estrogen to produce endometriosis. Other theory postulates that under primitive right circumstances, pluripotential the mesenchymal cells may undergo specialized differentiation to form endometriomas ⁽⁵⁾. Pain in the endometriosis is classically described as cyclic pain but constant and noncyclic pattern also occurs. The interval between the surgical procedure and presentation of scar endometriosis varies from months to years. Various non-invasive diagnostic imaging modalities like ultrasonography with colour doppler, computed tomography scan and magnetic resonance imaging are able to give correct diagnosis but lack specificity.

Francica et al., in their series showed diagnostic USG features of scar as a hypoechoic inhomogeneous echo texture with internal scattered hyperechoic echoes. regular margins, often spiculated, infiltrating the adjacent tissue a hyperechoic ring of variable width and continuity. On colour doppler examination, a single avascular pedicle entering the mass at the periphery is one of the diagnostic features⁽⁵⁾. Preoperative MRI is valuable in defining the extent of disease, thus enhancing accurate and total excision⁽⁶⁾. On CT scan, endometrioma appears as a circumscribed solid mass enhanced by contrast and may sometimes show hemorrhage⁽⁷⁾. Lately many reports have documented the accuracy of FNAC from the mass as an important confirmatory investigation. Because needle tract endometriosis has been reported, it is advisable to include the site of aspiration in the surgical resection field ⁽⁸⁾. Theoretically, this procedure has the potential to seed the needle tract with cells and can cause recurrence, especially within concomitant intrapelvic endometriosis, although this has not been reported. Wide excision with at least 1 cm margin is considered as the treatment of choice and fascial defect may need closure with synthetic mesh if the underlying sheath is found to be involved. Medical therapy with danazol and GnRH produces only partial relief of symptoms and usually recurrence occurs after cessation of the treatment.

Conclusions

Diagnosis of scar endometriosis should be suspected in patients with an abdominal or pelvic anterior wall mass at cross-sectional imaging in the location of a previous surgical scar. Knowledge about this rare condition helps in timely and accurate diagnosis. It also would avoid unnecessary interventions and in providing effective management.

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