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Case Report

Scar endometriosis: a case report

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ABSTRACT

Caesarean scar endometriosis is most commonly reported type of abdominal wall endometriosis due to is pathophysiology where endometrial tissue from caesarean incision directly implanted to the scar. A case report of a patient with a troublesome scar after caesarean section is presented below. A 34-year-old multipara with history of caesarean section delivery presented with complain pain, mass and bloody discharge from mass which increases during menstruation since past 5 years with history of lumpectomy 18 months ago with recurrence of symptoms 6 months after lumpectomy. On examination there was a 4×5 cm size, bluish firm, immobile mass at left size of caesarean scar. MRI suggested lesion measures 37×42×45 mm at the paramedian aspect of anterior pelvic wall involving rectus abdominis muscle, subcutaneous tissue and skin at site of previous surgical scar. Patient was operated and histopathological examination confirms diagnosis of scar endometriosis. Scar endometriosis is a rare entity which can easily be misdiagnosed as lump but the cyclic nature of pain with or without discharge from lump in a female patient with history of caesarean section should raise the suspicion of scar endometriosis. Caesarean scar endometriosis has a reported incidence of 0.03 to 0.45%. Diagnosis is mainly clinical after ruling out other conditions and diagnosis can be confirmed with radiology imaging and histopathology. Caesarean scar endometriosis should be considered in a reproductive age group patient with previous caesarean delivery which present with complain of lower abdominal pain.

Keywords: Endometriosis, Scar endometriosis, Lower abdominal lump, Caesarean scar

INTRODUCTION

Endometriosis is described as presence of functioning endometrial tissue outside uterine cavity.[1] It can occur in both pelvic and extrapelvic sites, most commonly in the ovaries, posterior cul-de-sac, uterine ligaments, pelvic peritoneum, rectovaginal septum, and abdominal wall. The prevalence of endometriosis is ten to fifteen percentages usually occurring in the reproductive age group of females.[2]

Scar endometriosis, also called as incisional endometrioma, is a rare form of extra pelvic endometriosis, that occurs in those incisions where the endometrial tissue might come into contact as in caesarean sections, hysterectomies, and myomectomies.

Caesarean site endometriosis is one of very rare complication with a prevalence of 0.03% to 0.4%.[3] Diagnosis of caesarean site endometriosis is by high clinical suspicion due to cyclic pain in the region, bloody discharge from the swelling during menses, history of abdominal surgery with a conformation by histopathology after excision. Scar endometriosis is commonly misdiagnosed as hematomas, hernias, granulomas, abscesses, neuromas, or even neoplastic tissues.

We herein, report a case of caesarean scar endometriosis in a 34-years-old female patient.

CASE REPORT

A 34-year, old multiparous women came to our hospital complaining of pain in her lower abdominal region

accompanied with bloody discharge from left paramedial region of the previous caesarean section scar site at the time of her menses (Figure 1). The pain at scar site was severe and increased in intensity as she would near her menses, also the pain was not associated with dysmenorrhea. This complaint was experienced by the patient for last 5 years and she never experienced such symptoms before. She had history of previous two caesarean sections, last one being 6 years back. She also noticed a lump at caesarean scar site which initially only felt during menstruation which gradually increases in size. Her past menstrual history was of normal regular flow. There was no significant family history of any malignancy or other such illnesses. From her obstetric history the caesarean sections were performed with Pfannenstiel incision without any postoperative complications. She consulted earlier with nearby general surgeon for the painful lump 18 month ago where lumpectomy was performed but there was no relief in pain, lower abdomen tenderness and lump reoccurred 6 months post lumpectomy.

Figure 1: Mass at the previous caesarean scar (left side) with skin puckering.

On examination, her general condition was fair with vitals being stable. On abdominal examination a bluish colour, immobile, non-reducible, tender mass with firm consistency, approximately 4×5 cm size at left side of Pfannenstiel incision scar 3 cm from midline with puckering of skin was present. There was no effect of cough on size of mass. Rest of the abdomen was normal with normal umbilicus, normal bowl sound. The external and internal genitalia was healthy.

Based on history and examination differential diagnosis of scar endometriosis or hematoma or uterocutaneous fistula was made.

On radiological imaging like USG showed heterogeneous hypoechoic area in abdominal subcutaneous plan below the scar area of size 32×42×45 mm (Figure 2). This was followed by MRI abdomen and pelvis for mapping of such lesion at any other sites. MRI suggested lesion measures 37×42×45 mm at the paramedian aspect of anterior pelvic wall involving rectus abdominis muscle, subcutaneous tissue and skin at site of previous surgical scar. Lesion was intermediate to hypointense on T1 and intermediate to hyperintense on T2 weighted imaging. MRI finding was suggestive of scar endometriosis.

Figure 2: USG abdomen of heterogeneous hypoechoic area in abdominal subcutaneous plan below the scar area of size 32×42×45 mm.

Patient was planned for an elective excision of the scar site. An elliptical skin incision made around scar endometriosis site and dissection done up to fascia above muscle. A segment of 10x6x4cm removed completely with fresh tissue margin around. Muscle approximation done and haemostasis achieved. Abdomen closed back in layers after achieving complete haemostasis. Tissue was saved in formalin and sent for histopathology examination. Patient was observed in postoperative ward which was uneventful and showed good healing (Figure 3). Patient showed relief in symptoms soon.

Figure 3: Post operative picture.

On histopathologic examination, the sections showed endometrial glands lined by benign endometrial cells.

These glands are surrounded by stromal cells and hemosiderin laden macrophages. Hence the final diagnosis was made as an endometriosis of the previous LSCS scar. Patient was discharged and was apparently asymptomatic on follow up visits.

DISCUSSION

Scar endometriosis is largely related to previous abdominal surgery, especially caesarean section and hysterectomy. One such study analysed 30 years of incisional endometriosis after caesarean section shows that incidence of scar endometriosis is 0.08%.[4] The frequency of scar endometriosis has increased due the high rate of caesarean section and laparoscopy performed in recent years with the incidence of post caesarean section scar quoted to 1.96% in recent study.[5] Most studies said that scar endometriosis involves surgical procedures in which uterus is opened, endometrial tissue gets accidentally implanted into the abdominal incision and it grows to form a mass that increases in size during menses and become symptomatic. This is the most plausible theory named direct mechanical implantation.[6] However, this theory cannot explain all cases where few cases of primary cutaneous endometriosis without prior abdominal surgery such as vulva, perineum, groin, umbilicus, and extremities, hence this type of endometriosis can be caused by tubal retrograde spread, genetic, and immunological influences, lymphatic and vascular spread.[7] In our case, the patient did not have any prior history of endometriosis or any other immunological disease. From this fact we assume that main cause of endometriosis in our patient was through direct implantation. Caesarean scar endometriosis can develop ranging from 12 months to 21 years because it could remain dormant for several years until it shows symptoms, common symptoms being cyclical pain, swelling which worsen in the menstrual cycle.[8] Caesarean scar endometriosis can be diagnosed by physical examination and comprehensive history taking. It presents with mass near previous surgical scar associated with regularly repeating colicky pain, which also appeared in our patient. Because abdominal wall endometriosis can mimic hematomas, incisional, ventral hernias, benign or malignant subcutaneous tumours, high awareness and suspicious is required to make diagnosis. We also use radiological imaging to support out diagnosis, best being MRI to know the extent of scar. A study said MRI is useful modality for presurgical mapping of deep pelvis endometriosis with sensitivity and specificity that could reach 90% to 92% and 91% to 98% respectively.[9] Some studies reported that we can use fine needle aspiration cytology, instead of it's usability of confirming definitive diagnosis, we must be aware about the increasing risk of producing new endometriotic implants at puncture site. In our case we did not do FNAC.

There are two methods to treat caesarean scar endometriosis, surgical and non-surgical. For the non-surgical we could give gonadotropin releasing hormones analogues which help alleviate the symptoms, but this method does not reduce the size and recurrence after the cessation of medication is constant.[10] A surgical procedure as we did in our case is an accurate treatment of choice of scar endometriosis and also for recurrent lesions, as expected, the larger and deeper lesion to the muscle or the fascia are more difficult to excise completely. For some large lesion cases, complete excision of lesion may entail a synthetic mesh placement or tissue transfer for closure after resection.

CONCLUSION

Caesarean scar endometriosis should be considered in women of childbearing age with lower abdominal pain and /or mass at the caesarean scar from previous delivery or following obstetric-gynaecological surgery. Both imaging and histopathological examination play important role in making diagnosis. Free margin endometriosis excision surgical procedures are crucial and a challenging task are any remnant tissue may again give rise to recurrent endometriosis. It was a difficult task and was accomplished in our patient.

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