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SCAR ENDOMETRIOSIS

Pathology

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ABSTRACT

Introduction: Scar Endometriosis is a rare diagnosis characterized by presence of endometrial tissue at the site of surgical scar. The most common reported site is caesarean section scar. The patient presents with abdominal pain or swelling at the site of previous surgical incision and cyclical increase in the size of swelling. The diagnosis is made only with histopathological examination of the excised Surgical Specimen. **Case Report:** We present 4 cases of Scar endometriosis to highlight their rare occurance and difficulty in diagnosing the condition clinically. **Conclusion:** Scar endometriosis is a rare diagnosis which mimics a variety of clinical conditions and present as a diagnostic dilemma. Histopathological examination plays Important role in definitive diagnosis. Proper surgical Surgical care while excision of the lesion helps in preventing the recurrence.

KEYWORDS

Abdominal Pain, Caesearean section, Scar endometriosis.

INTRODUCTION:

Endometriosis is defined as presence of endometrial glands as well as stroma outside the uterus. It was first described by Karl Von Rokitansky in 1860[1]. It mainly affects women in reproductive age. Caesarean scar endometriosis is seen at the post operative scar site in 0.03% to 0.4% cases of caesarean section [2,3]. The great variability of symptoms and clinical features about this condition can lead to difficulty in diagnosis which can delay the definitive treatment. We report four cases of caesarean section scar endometriosis managed at a tertiary care center.

CASE REPORT:

Four cases of scar endometriosis were reported in our department within a period of one year i.e 2023.

Table 1: Clinical Presentation Of Cases.

	Age	Number of Previous LSCS	Time Interval Post LSCS	Clinical features	Clinical Diagnosis
Case 1	42 years	3	11 years	Pain at scar site	Scar endometriosis
Case 2	30 years	1	6 years	Subcutaneous mass with tenderness under the incision scar	Pelvic inflammatory disease
Case 3	37 years	2	5 years	Abdominal swelling, cyclical pain and discharge at the scar site.	Stitch granuloma
Case 4	27 years	1	6 years	Cyclical abdominal pain, swelling at the scar site.	USG suggested scar endometriosis

Ultrasonography of abdomen was done in one case which was diagnosed as ill-defined heterogeneously hypoechoic solid lesion of size 4.9 x 3.5 x 2.3 cm in deep subcutaneous plane in right end of caesarian section scar – Suggestive of scar endometriosis. (Figure-1).

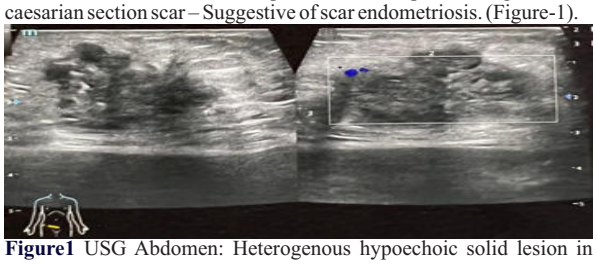
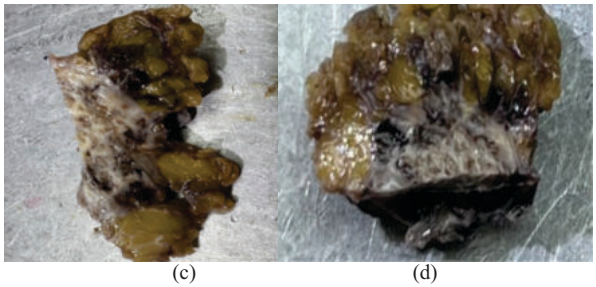


Figure1 USG Abdomen: Heterogenous hypoechoic solid lesion in subcutaneous plane.

All patients underwent excision of swelling and we received specimens for histopathology evaluation. On gross examination specimens received were either single or in multiple pieces, ranging from 2.5 x 1.5 cm to 5 x 4 cm. Cut section of these specimens revealed grey-white to grey- brown, solid to cystic areas, with areas of hemorrhages. (Figure 2)

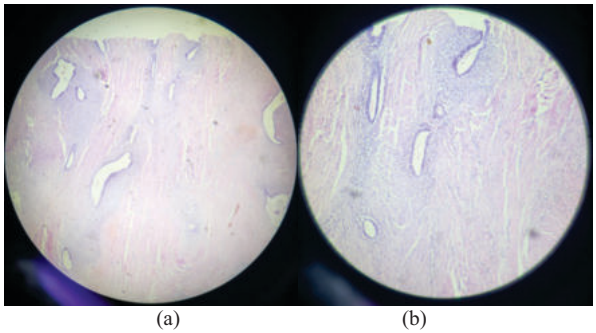
(a) (b)



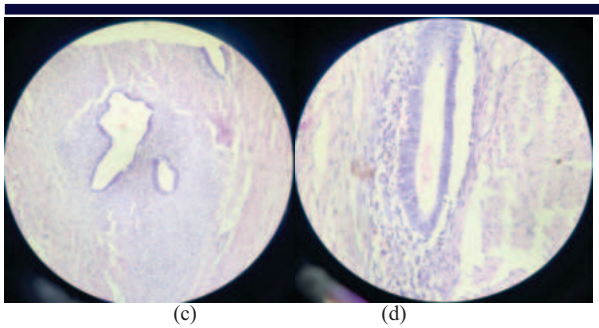
(c) (d)

Figure 2- Gross examination- grey white to grey brown tissue pieces. Cut section was solid, cystic and grey brown.

Microscopy:



(a) (b)



(c) (d)

Figure 3- Microscopy - Endometrial glands and stroma infiltrating fibrous connective tissue and muscle tissue. (a-c – 100x H& E), (d-400x H&E)

Histopathological examination of these cases revealed endometrial glands with stroma embedded in fibro collagen tissue and adipose tissue. One of the case revealed functioning endometrial glands with pseudo-decidual change in the stroma that is progesterone effect due to extensive administration of progesterone. In other three cases, endometrial glands were in proliferative phase and stroma revealed hemorrhages. Post-operative follow up of all these cases is uneventful.

DISCUSSION:

Scar endometriosis is a rare diagnosis which is seen with history of surgical procedures mostly caesarean section and affects women of reproductive age group. Various theories have been proposed for the development of this disease. The most accepted theory is iatrogenic implantation of hormone sensitive endometrial tissue at the site of incisional wound during abdominal or pelvic surgery [4]. Another hypothesis is decrease natural killer cell immune response resulting in decrease clearance of endometrial cells from peritoneum [5]. The time interval between surgical procedure and the development of endometriosis varies from 3 months to 10 years [6]. In our case, the interval was 5 years to 11 years after caesarean section.

Scar endometriosis occurs after surgical procedures like hysterectomy, episiotomy, laparoscopic gynecological surgeries, tubectomy and caesarean section [7]. In Our cases prior surgical procedure was caesarean section. The commonest clinical presentation in these cases is painful nodule at the site of previous surgical incision for gynecological or obstetric surgical procedures. In a parous women bleeding into the tissue during menstruation results in cyclical local pain, tenderness & discoloration. In our cases the clinical presentation was abdominal pain which was cyclical with swelling at the scar site, in one case there was history of cyclic discharge at a scar site. The diagnosis of scar endometriosis is difficult to establish. These cases are often misdiagnosed as stitch granuloma, lipoma, incisional hernia, fat necrosis, abscess and sebaceous cyst [8]. USG, CT scan & MRI have high sensitivity for diagnosing this condition [6]. Ultrasonography reveals hypoechoic, solid, echotexture with infiltrating margins in the surrounding tissue [9]. In our cases CT & MRI were not tried & USG was done in one of the case, the report of which was suggestive of scar endometriosis. Histopathological study after the excision is the definitive diagnostic method, which is proving in all our cases. Microscopy of this lesion reveals endometrial glands & stroma embedded within fibroblast, collagen fibers and adipose tissue [5].

Treatment:

Wide surgical excision with one cm margin is the definitive treatment [11]. Care should be taken during surgical procedure so as not to rupture the lesion to avoid the implantation [2]. The similar treatment was tried in our cases.

CONCLUSION:

Scar endometriosis is a rare diagnosis which mimics a variety of clinical conditions and presents as a diagnostic dilemma. Histopathological examination plays an important role in definitive diagnosis. Proper surgical care while excision of the lesion helps in preventing the recurrence.

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