



A bizarre surgical aftermath of caesarean scar endometriosis

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ABSTRACT

A 32-year-old multiparous female patient came to our gynaecology OPD with complaints of a painful lump over the previous caesarean scar. She had a history of two caesarean sections previously in 2012 & 2015. The last Caesarean section was done electively along with copper T insertion in 2015. In the post-operative period, she had a superficial surgical site infection which was managed successfully with antibiotics and re-suturing done on day 8 postoperative period and rest were uneventful. On per abdominal examination seen, a hyperpigmented hard indurated tender mass of 6*4cm present in the right side of scar site with 2mm orifice and chocolate brown fluid seen oozing from the orifice on pressing. Ultrasound showed a hypoechoic mass of 4*6 cm in the subcutaneous plan of the abdominal wall extending up to the anterior uterine wall with minimal vascularity. Possibility of scar endometriosis was given. Contrast-enhanced computed tomography showed defined Solid soft tissue mass of size 2*8.3*3.4 cm (CC*AP*TR) seen in the deep subcutaneous plan of the anterior abdominal wall in the hypogastric region extending to deep musculature of rectus abdominis. Rectus muscle and anterior rectus sheath closed with loop ethilon and 15*15cm trulene mesh placed as only mesh fixed with 2-0 prolene and another drain placed. The patient made a good recovery following the surgery. Histopathology report consistent with scar endometriosis showing foci of endometrial tissues consisting of cystic endometrial glands surrounded by endometrial stroma.



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It usually occurs in the pelvis, at sites such as the ovaries and the pelvic peritoneum. Sometimes ectopic endometrial tissue can also be found outside the pelvis, such as an abdominal wall, bowel, lung and even brain.

The presence of ectopic endometrial tissue embedded in the subcutaneous adipose layer and the muscle of the abdominal wall is called abdominal wall endometriosis (AWE). [2] AWE can occur spontaneously but usually develops in association with a previous surgical procedure, such as a caesarean section, hysterectomy, or appendectomy.

INTRODUCTION

Endometriosis is defined as the presence of endometrial like stroma and glands outside the uterine endometrial area. [1]

Scar endometriosis is a rare disease with non-specific symptoms like pain and swelling at the scar site, especially during menstruation. [3] The incidence may vary between 0.03 to 0.1 %, and the onset may vary from 3 months to 12 years.

Case Presentation

32 years old multiparous female came to our gynaecology OPD with the complaints of a painful lump over the previous caesarean scar. She had two caesarean sections previously in 2012 & 2015. Last Caesarean was done electively along with copper T insertion in 2015. In the postoperative period, she had a superficial surgical site infection which was managed successfully with antibiotics and re-suturing done on day 8 postoperative period and rest were uneventful.

She was asymptomatic for 4 years after the last caesarean section and started developing a small lump over the right side of the scar site with vague pain for 1 year. The pain was found to increase in intensity during menstruation with the history of discharge from the wound starting particularly from day 3 of menses for 5 days. Menstrual history otherwise normal for regular cycles and flow with no history of dysmenorrhea or heavy menstrual bleeding. She was prescribed NSAIDS and oral cyclical progesterone for 6 months previously. Pain in the scar site improved with the treatment, but discharge persisted despite conservative management done.

On per abdominal examination seen, a hyperpigmented hard indurated tender mass of 6*4cm present in the right side of scar site with 2mm orifice and chocolate brown fluid seen oozing from the orifice on pressing (Figure 1). Mass was non-warmth, no erythema and seen fixed to the scar site. No other mass was seen. Per speculum & per vaginal examination were normal. A differential diagnosis of scar endometriosis, hematoma and stitch granuloma was made.

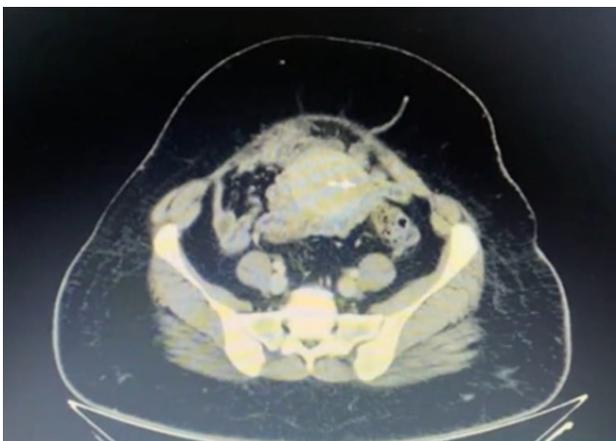


Figure 1: CECT picture of endometriotic scar mass seen from the skin, subcutaneous layer till the anterior uterine wall

Investigations

Ultrasound showed a hypoechoic mass of 4*6 cm

in the subcutaneous plan of the abdominal wall extending up to the anterior uterine wall with minimal vascularity. Possibility of scar endometriosis was given. Contrast-enhanced computed tomography showed defined Solid soft tissue mass of size 2*8.3*3.4 cm (CC*AP*TR) seen in the deep subcutaneous plan of the anterior abdominal wall in the hypogastric region extending to deep musculature of rectus abdominis (Figure 2). Post-contrast mild enhancement of mass was seen. They were posteriorly abutting and infiltrating the anterior wall of the uterus, likely adhesions. Uterus measured 12*5.3*6.5 cm with copper T in situ. Bilateral tubes & ovaries were normal. Divarication of recti noted.



Figure 2: Gross picture of excised endometriotic tissue containing skin, scar tissue, subcutaneous fat, rectus sheath and muscle

Treatment

With the working diagnosis of scar endometriosis, the patient was taken up for wide excision of scar endometriosis with mesh plasty done under anesthesia. Scar excision by wide margins is done by dissecting anterior and posterior rectus sheath and rectus muscle (Figure 3). Scar adhered to the anterior uterine wall, but no communication was present. Defects of 6*6cm were noted in the rectus sheath. Posterior rectus defect closure with 2-0vicryl and 15*15cm polypropylene sublay mesh fixation with trans abdominal repair done on both sides and drain placed (Figure 4). Rectus muscle and anterior rectus sheath closed with loop ethilon and 15*15cm trulene mesh placed as onlay mesh fixed with 2-0 prolene and another drain placed (Figure 5).

Outcome and Follow-Up

Postoperative period managed with antibiotics, blood sugar control and a clean dressing. The drain was removed on day 13 and sutures removed on day 15. Histopathology report consistent with scar



Figure 3: Hyperpigmented scar site with induration marked by sketch and artery forceps pointing to the orifice

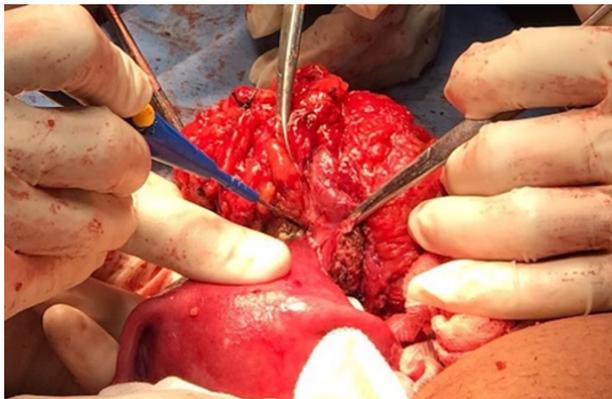


Figure 4: Intraoperative picture showing endometriotic tissue attached to the anterior uterine wall

endometriosis showing foci of endometrial tissues consisting of cystic endometrial glands surrounded by endometrial stroma.

DISCUSSION

Scar endometriosis is a very rare entity, and its incidence following the caesarean section quoted to may vary between 0.03 to 0.1 % and has been 1.96% in a recent study. [4] Endometriosis implants in the subcutaneous tissue of surgical scars occur mostly after caesarean sections, hysterectomies, cystectomies, tubal ligations, and amniocenteses. Cases related to surgical scars of appendectomies, umbilical hernioplasties, and laparoscopic trocar tracts have also been described. [5]

Direct mechanical implantation seems to be the most plausible theory for scar endometriosis. [6] During caesarean section, endometrial tissue might be seeded into the wound and proliferates under hormonal influence. When a proper pre-diagnosis

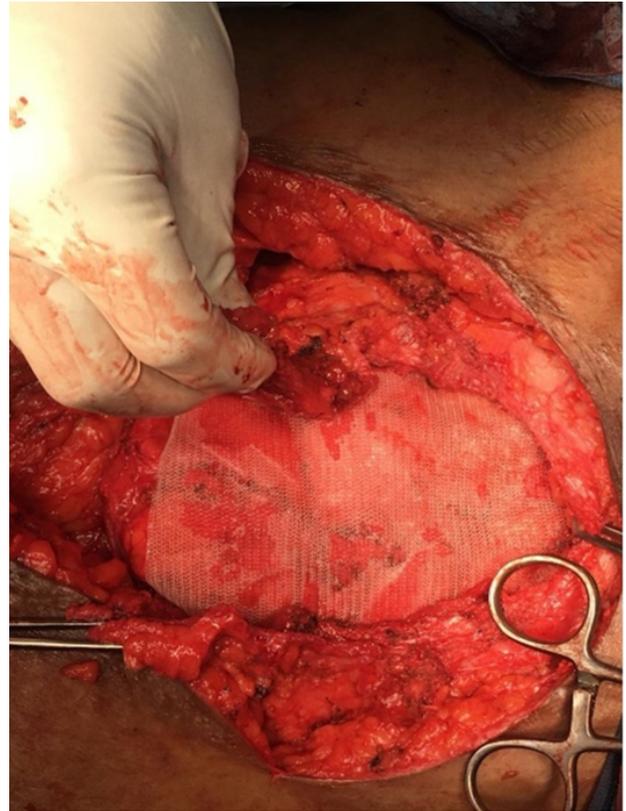


Figure 5: Posterior rectus defect closure with 2-Ovicryl and 15x15cm polypropylene sublay mesh plasty done

cannot be achieved, it can be easily mixed with other conditions like hematoma, neuroma, hernia, granuloma, abscess, scar tissue, neoplastic tissue, or even metastatic carcinoma. Correct preoperative diagnosis is achieved in 20% to 50% of these patients. Local wide excision, with at least a 1 cm margin, is an accurate treatment choice of scar endometriosis.

As expected, the larger and deeper lesions to the muscle or the fascia are more difficult to excise completely and may entail a synthetic mesh placement or tissue transfer for closure after resection as done in the index case. The surgery is effective in preventing recurrence, as well as conversion to malignancy, a rare phenomenon, which has been described in a few sporadic cases.

CONCLUSION

The frequency of scar endometriosis increased by an increased number of obstetric and gynaecological surgeries performed in recent years. A proper history and physical examination that correlates with menstruation can help in arriving at a good diagnosis. Wide local excision is the mainstay treatment. Prevention of scar endometriosis can be done by certain measures such as excluding the decidua

while closing the uterus and using different mopping pads and different needles for different layers during the closure of the abdomen.

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Conflict of Interest

The authors declare that they have no conflict of interest.

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