

Wide excision of scar endometriosis in a case of previous caesarean section.

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Abstract

Endometriosis, though a common disorder amongst women of reproductive age, is infrequently observed in abdominal scar after caesarean section. It can pose a diagnostic conundrum and other differentials for an abdominal lump in females should be ruled out. The authors report a case of 28-year-old woman referred for a painful lump at caesarean scar.

This report discusses and evaluates the incidence, pathophysiology, course, diagnosis, treatment and prevention of this condition. Increasing awareness among clinicians is required as it is no longer a rare entity and early diagnosis can help provide appropriate treatment.

Keywords: Endometriosis, Caesarean, Excision, Abdominal lump.

Introduction

Endometriosis is a common benign gynaecologic disease during the reproductive age arising from ectopic proliferation of endometrial tissue outside the uterine cavity under the influence of hormones. Symptoms include cyclic menstrual pain, abnormal uterine bleeding, chronic pelvic pain, dyspareunia, and infertility.

Usually, endometriosis develops in the uterine adnexa (commonest site being ovaries), but sometimes it occurs in an extra pelvic location such as the urinary bladder, kidney, bowel, omentum, lymph nodes, lungs, pleura, extremities, umbilicus, hernial sacs, and abdominal wall.^{[1],[4]}

Cutaneous involvement occurs in less than 1% of all cases of endometriosis. It can be found on obstetric and gynaecologic surgical sites of the abdomen or perineum

following caesarean section, hysterectomy, myomectomy, hysterotomy, tubectomy or laparoscopy.^[1]

Case report

A 28-year-old female presented with dull aching pain in lower abdomen (on & off), swelling over previous caesarean scar site and irregular menstrual cycles over preceding 3 months. She had a history of 2 caesarean sections between 2014-2016. Medical history included Pulmonary Kochs, treated in 2014. Patient's body mass index was 22 kg/m². Local examination revealed a 6 x 7 cm tender, firm, ballotable mass over the left lateral aspect of Pfannensteil scar line, arising from anterior abdominal wall.

A local ultrasound reported a well-defined heterogeneously hyperechoic lobulated lesion measuring 6.3 x 4.4 x 7cm in the left rectus muscle underlying the caesarean scar site with multiple cystic areas in the periphery of the lesion with central echogenic areas and mild vascularity suggesting of scar endometriosis. Fine needle aspiration cytology revealed endometrial lining cells. All routine blood investigations were within normal limits. Wide en-bloc excision of the abdominal wall lump with bilateral tubal ligation was done under spinal anaesthesia. 7 x 5 x 3 cm mass involving the subcutaneous tissue, rectus muscle, rectus sheath and peritoneum was excised.

Omentum was adherent to the mass and to anterior uterine surface. Adhesiolysis was done. Mini abdominoplasty performed and rectus sheath reconstructed with non-absorbable Ethilon no.1 using continuous interlocking sutures. Post-operative period was uneventful and patient treated with intravenous antibiotics, abdominal binder, stool softeners, cough suppressants and injection Leuprolide. Histopathology showed fibroadipose tissues with interspersed glands and stroma of endometriosis

which confirmed the diagnosis. Follow up period of 3 months was uneventful.



Fig 1: Macroscopic view of the resected specimen.

Discussion

Scar endometriosis was considered a rare entity but now has a rising clinical presentation. Incidence estimated to be 0.03% to 3.5% of all cases of endometriosis. Most accepted theory is the iatrogenic transplantation of endometrial tissue to the wound edge during an abdominopelvic surgery. This theory is convincingly demonstrated by experiments conducted by Ridley and Edward in 1958 in which normal menstrual effluent transplanted to the abdominal wall resulted in subcutaneous endometriosis. In clinical practice, cutaneous endometriosis is seen in incisions of any type where there has been possible contact with endometrial tissue, including caesarean section, hysterotomy, ectopic pregnancy, hysterectomy, myomectomy, laparoscopy, and episiotomy.^{[1],[3]}

Amongst these, caesarean section is the most common procedure to be associated. Higher incidence is reported after early hysterotomy, as early decidua seems to have more pluripotential capabilities and can result in enhanced cellular replication.^[2] Time interval between operation and presentation has varied from 3 months to 10 years in different series. Spontaneous endometriomas may occur due to lymphatic or hematogenous spread, though

extremely rare in occurrence. Al Shak Archi J et al published a case report depicting involvement of the rectus abdominis muscle in an unscarred abdomen, highlighting the complex pathogenesis behind the development of scar endometriosis.

Common clinical symptoms and signs are swelling, tenderness at local site, cyclic pain and bleeding from the site during menstruation. It is often misdiagnosed as stitch granuloma, inguinal hernia, lipoma, abscess, cyst, incisional hernia, neuroma, desmoid tumor, sarcoma, lymphoma, or primary and metastatic cancer.^{[1],[4]} Various imaging techniques are able to give correct diagnosis but lack specificity. Ultrasound is the most accessible, affordable and cost-effective imaging modality^[2] Computed tomography (CT) or Magnetic resonance imaging (MRI) can be used to provide additional information, but are more costly and their added value is unclear. Definitive diagnosis is made by means of fine needle aspiration cytology (FNAC) and histopathology of the specimen retrieved by surgical excision.

Gold-standard treatment is wide excision and reconstruction (Mini-Abdominoplasty); with or without a mesh placement. This surgery is effective in preventing recurrence, as well as conversion to malignancy, which although rare (<1%) has been described in a few cases.^[1] Excision may be delayed in cases of mild symptoms when the patient plans to conceive future pregnancy.

Medical management includes the use of combined oral contraceptives, progestones, danazol, continuous gonadotropin-releasing hormone agonists, aromatase inhibitors, anti-progestones and androgens for decidualization, atrophy of endometrial tissue, and for relieving pain; but results are limited and recurrence is high with sole medical measures. Wound complications such as dehiscence, hematoma, seroma, and hypertrophic scar; asymmetry of the abdominal wall may occur.

Standardized measures must be practiced during routine pelvic surgeries in order to prevent iatrogenic endometrial tissue implantation. Sponge or mop used over the uterine cavity should be discarded, different sutures must be used for uterus and abdominal wall, saline irrigation must be done before abdominal closure^[3], sucking out and washing endometriomas before performing ovarian cystectomy.

Follow up of endometriosis patients is important due to chances of recurrence and need for re-excision, possibility of malignant transformation and development of concomitant pelvic endometriosis.

Conclusion

Scar endometriosis is a rare and often elusive diagnosis that can lead to both patient and physician frustration. One should maintain a high level of suspicion in any woman presenting with pain at an incisional site, most commonly following pelvic surgery. In the light of rising C-section, it may become more common. So, it is highly recommended that during obstetrical & gynecological operations, precautions should be practiced.

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