

Massive Abdominal Wall Endometriosis Masquerading as Desmoid Tumour

Endometriosis is a common gynaecological condition that usually presents as an abdominal lump. It can be a diagnostic dilemma and should be considered as a differential diagnosis for lumps in the abdomen in females. We discuss a case of abdominal wall endometriosis following caesarean section, which was misdiagnosed as a desmoid tumour.

KEYWORDS: Abdominal wall, endometriosis, desmoid tumor

INTRODUCTION

Endometriosis is defined as functioning endometrial tissue outside the uterine cavity. It occurs in up to 15% of menstruating women.^[1] Endometriosis occurs most frequently in the pelvis. Extrapelvic endometriosis is less common. It can occur in every organ of the body, including the gall bladder, gastrointestinal tract, skin, appendix, kidney, and lung. Hernial sacs, abdominal wall, and surgical scars also are sites of involvement.^[2] Caesarean section endometriosis is a rare event, with an incidence of 0.03-0.47%.^[3] We, hereby, report a case of endometriosis in a caesarean section scar, which was initially misdiagnosed as a desmoid tumour.

CASE REPORT

A 30-year-old woman presented with a gradually increasing painful abdominal lump for the past six years. The pain was not associated with menstruation. Seven years back, she had undergone caesarean section for cephalo-pelvic disproportion. Physical examination revealed a 12 × 10 cm tender firm midline abdominal lump. The overlying skin was discoloured, with a

dark brown scar. Ultrasound revealed a large firm mass lesion in the lower anterior abdominal wall in the midline extending up to the pubic region and showing hypochoic and isochoic components. CT scan revealed a 10 × 8 × 5 cm ill-defined heterogeneous soft tissue density mass lesion in the anterior abdominal wall, infraumbilical region predominantly epicentred at the right rectus abdominis muscle with extensions into opposite rectus muscle, skin, and subcutaneous tissue [Figure 1]. Based on the clinical and radiological findings, a desmoid tumour was considered. The mass was excised

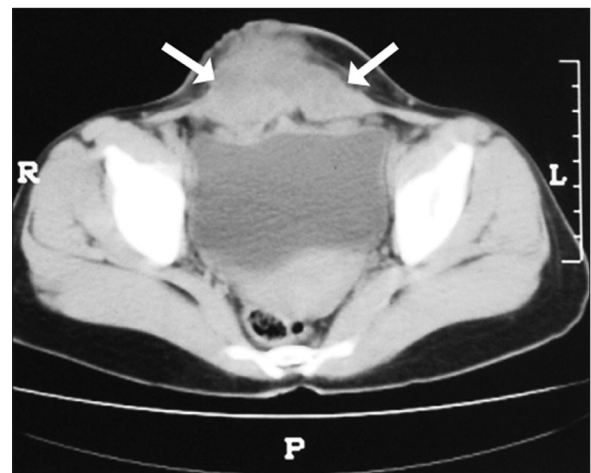


Figure 1: CT scan revealing a 10 × 8 × 5 cm ill-defined heterogeneous soft tissue density mass lesion in the anterior abdominal wall involving rectus abdominis muscle, skin, and subcutaneous tissue (arrows)

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and sent for histopathological examination.

Grossly, the specimen measured 13.2 × 12.3 × 5.5 cm. It was a soft tissue mass covered with skin, along with a part of the rectus muscle. The skin surface showed scarring [Figure 2]. On the cut section, multiple cystic spaces filled with haemorrhagic fluid were evident [Figure 3]. Microscopy revealed islands of endometrial tissue embedded in abundant collagen-rich desmoplastic stroma. Few of the endometrial glands were cystically dilated and filled with haemorrhagic fluid. The endometrial glands and stroma were seen infiltrating into the abdominal musculature and adipose tissue. Foci of haemorrhage and chronic inflammatory infiltrate were also seen [Figures 4 and 5]. Based on the above findings, a diagnosis of abdominal wall endometriosis (AWE) was made.

Following wide local excision, the patient was

administered danazol 100 mg twice daily for initial six months. After nine months of follow-up, the patient is doing well and is symptom free.

DISCUSSION

Endometriosis is characterised by the presence of histologically normal endometrial tissue outside the uterine cavity, usually the pelvis. The most common extrapelvic location of endometriosis is the abdominal wall, particularly surgical scars related to gynaecologic or obstetric surgery.^[4] The incidence following hysterectomy is 1.08-2%, whereas after Caesarean section, the incidence is 0.03-0.4%.^[5] AWE has also been reported after amniocentesis, hypertonic saline solution abortion, and laparoscopy.^[4] An occasional case of AWE in the absence of previous surgery has also been reported.^[2]

Various theories have been proposed for endometriosis:^[6]



Figure 2: Gross appearance of the abdominal mass covered with skin

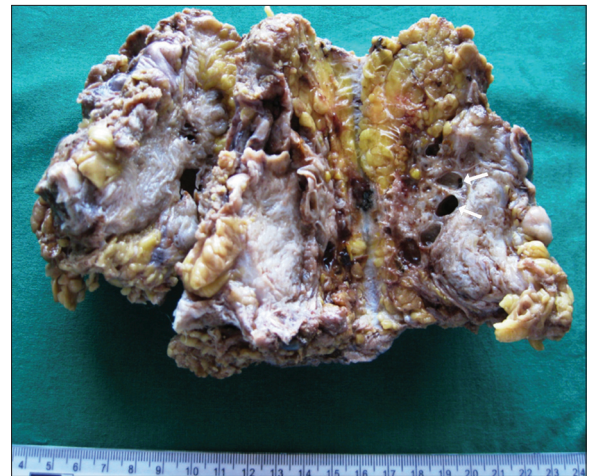


Figure 3: Cut section of the specimen showing multiple cystic spaces (arrows), along fibro-fatty tissue

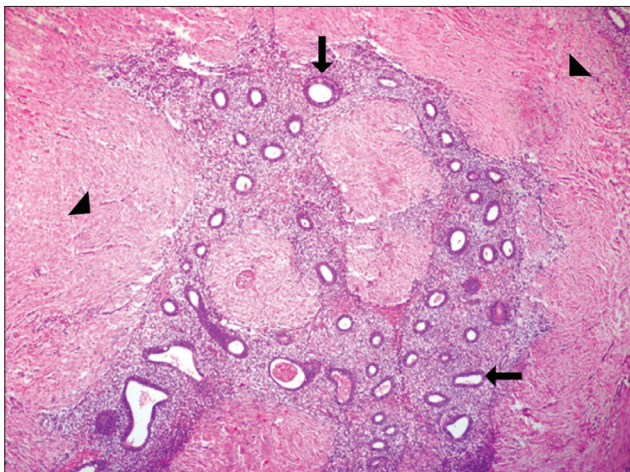


Figure 4: Microscopy revealing endometrial tissue (arrows) embedded in abundant desmoplastic stroma (arrow heads) (H and E, ×100)

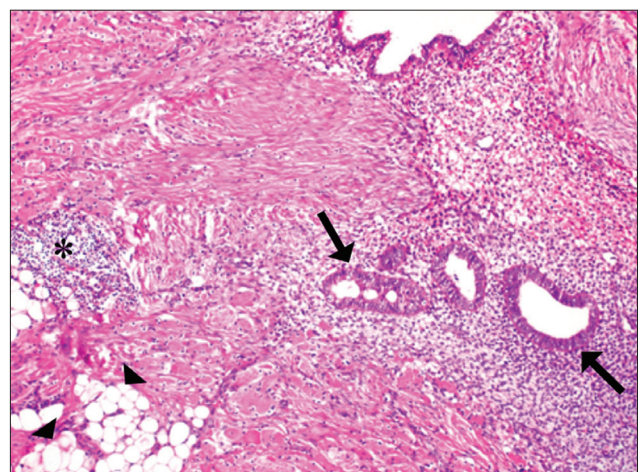


Figure 5: Photomicrograph revealing endometrial tissue (arrows), adjacent abdominal fat (arrow heads), and chronic inflammatory infiltrate (asterisk) (H and E, ×100)

- Retrograde spread of collections of endometrial cells during menstruation
- Blood, lymphatic, or iatrogenic spread
- Metaplasia of the pelvic peritoneal cells
- Immune system dysfunction and autoantibody formation

Scar endometriosis is believed to be the result of direct inoculation of the abdominal fascia or subcutaneous tissue with endometrial cells during surgical intervention and subsequent stimulation by estrogen.^[6] In different series, the time interval between operation and presentation has been shown to vary from three months to seven years.^[5]

The characteristic clinical symptom of AWE is cyclic pain associated with menstruation. The non-cyclic nature of pain has occasionally been reported, which may explain why it is clinically often misdiagnosed as in the present case. Most patients also present with a palpable mass at the site of maximum tenderness in the region of the surgical scar.^[7]

On sonography, these lesions appear hypoechoic, vascular, or solid, with some cystic changes. CT usually shows a solid, well circumscribed mass. The radiological findings are non-specific and a wide spectrum of disorders presenting as a mass should be considered in the imaging differential diagnosis. These include neoplasms such as sarcoma, desmoid tumour, lymphoma, or metastasis, as well as non-neoplastic causes such as a suture granulomas, ventral hernia, haematoma, or abscess.^[8,9] Histopathological examination is required for the final diagnosis of AWE.

Malignant changes in endometriosis in a Caesarean scar are rarely seen. Clear cell carcinoma is the most common histological subtype, followed by endometrioid carcinoma.^[10]

Therapeutic options for AWE are pharmacologic therapy with hormonal agents such as progestogens,

oral contraceptive pills, and danazol; or it may be surgical excision. The success rate of medical therapy has been reported to be low, offering only temporary alleviation of symptoms often followed by recurrence after cessation of the drug. Moreover, due to side effects such as amenorrhoea, weight gain, hirsutism, and acne, compliance is unlikely. Wide surgical excision, therefore, is the treatment of choice. Mesh replacement may also be done along with this.^[7]

To conclude, AWE is difficult to diagnose clinically and radiologically. A high index of suspicion is recommended when a woman presents with postoperative painful abdominal lump.

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