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GYNAECOLOGY CASE REPORT

Endometrioma in surgical scars

S. ABU-ESHY

Department of Surgery, College of Medicine and Medical Sciences, King Khalid University, Abha, Saudi Arabia

Introduction

Endometriosis, which is defined as ectopic endometrial tissue that responds to hormonal stimulation, is found in 8–15% of all menstruating women (Wolf *et al.*, 1996). Endometrioma in a surgical scar is rare and appears in 0·1% of women who have undergone caesarean section; 25% of these women have concomitant pelvic endometriosis (Wolf *et al.*, 1996).

Endometriomas have been reported in a variety of different locations, including the rectus abdominis muscle following caesarean section, skin and tissues adjacent to surgical scars and even at the site of needle passage for amniocentesis (Yackovich *et al.*, 1994).

In this communication, we present two cases of endometrioma occurring subcutaneously in caesarean section scars. Relevant literature, diagnostic tools and treatment modalities are discussed.

Case reports

Case 1

A 40-year-old Saudi female was referred with a painful mass at the right end of a caesarean section scar. She had three caesarean sections, the last of which was 3 years before her presentation. Physical examination revealed an obese lady with caesarean section scar (Pfannenstiel scar), the right end of which showed a 10 cm firm, tender, mobile subcutaneous mass with negative cough impulse. The clinical impression at that time was irreducible incisional hernia. Routine investigations were within normal limits. Upon exploration under general anaesthesia, a firm subcutaneous mass of about 10 cm in diameter, containing multiple bluish cysts was excised together with the surrounding fat. A small incisional hernia was also found and repaired. The excised mass was sent for frozen section, which confirmed endometrioma. Histological examination showed adipose tissues with fibrosis, endometrial glands and old haemorrhages consistent with endometriosis (Figure 1). The patient had an uneventful postoperative period.

Case 2

A 24-year-old Saudi female was referred with a painful mass at the left end of a caesaven section scar that was performed 3 years prior to her presentation. The pain increased during here menstrual period. Physical examination revealed a young woman with a Pfannenstiel incision and a 5 cm subcutaneous firm tender mass at the left end of the scar. Clinically, this was suspected to be an endometrioma. Routine investigations were within normal limits. Ultrasound scan (USS) showed a heterogeneous, ill-defined mass in the left end of the caesarean section scar and an enlarged right ovary with multiple follicles. On exploration, a 6 cm firm mass with multiple haemorrhagic cysts was found and excised from the external oblique aponeurosis (Figure 2). The defect in this aponeurosis was repaired. Post operatively she did well. The histological examination showed endometrial glands, cysts and stroma with haemorrhagic foci and periductal fibrosis.

Discussion

An endometrioma, which is less common than diffuse endometriosis, is defined as functioning endometrial tissue outside the uterus (Yackovich *et al.*, 1994). It has been reported in a variety of extrapelvic different locations. It was also reported in the lower abdominal wall of an 83-year-old male patient with adenocarcinoma of the prostate; the origin of endometrioma in this case was thought to be from the prostatic utricle, which is a remnant of the uterus existing in the male (Martin and Hauck, 1985).

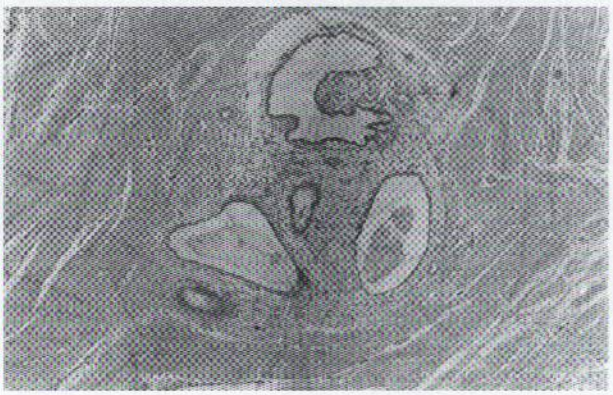

Figure 1. The cystically dilated endometrial glands within surrounding endometrial stroma and fibrous tissue reaction (haematoxylin & eosin; original magnification × 43).

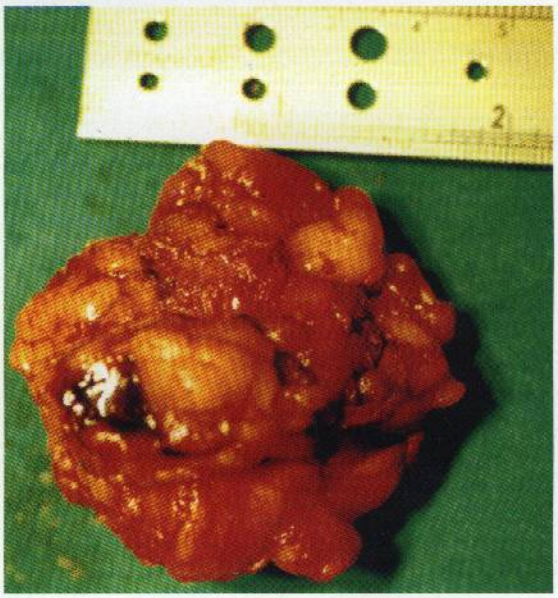

Figure 2. The gross appearance of the mass immediately after excision.

The mechanism of endometriosis occurring in caesarean scar is felt to be secondary to transplantation of endometrium or extrauterine decidual tissue into the incision during the caesarean section. This tissue is then stimulated by oestrogens to proliferate until it becomes symptomatic. Although endometriosis does occur in laparotomy scars, scar endometriosis most frequently is seen after operations in which the uterus is opened (Seydel *et al.*, 1996).

The diagnosis of endometrioma is mainly clinical; a painful lump in or near a caesarean section scar that becomes more prominent and painful during menstruation should raise suspicion of the disease. This was suspected in Case 2 in this report. However, other differential diagnoses should be considered. These include incisional herniae, haematomas, abscesses, granulomas and tumours (Wolf *et al.*, 1996). In case 1, a concomitant incisional hernia was found with the

Correspondence to: Dr Saeed Abu-Eshy, P.O. Box 641, College of Medicine, Abha, Saudi Arabia. Tel/Fax: +966 7 224 7570 or +966 7 226 0964; Email: subuashi@yahoo.com.

endometrioma. Different diagnostic tools can be used including USS, computerised tomography (CT), incisional or fine needle aspiration biopsy (FNAB) and laparoscopy (Thylan, 1996).

The treatment of choice for endometrioma is surgical excision (Purvis and Tyring, 1994). However, hormonal suppression with danazol or leuprolide has been reported to reduce the size of the mass and symptoms before the surgical excision (Purvis and Tyring, 1994; Thylan, 1996).

Conclusion

Extrapelvic endometrioma presenting to the general surgeon may be more frequent than that estimated from the literature. Therefore, an increased awareness and high index of suspicion will lead to accurate diagnosis. This can be confirmed by FNAB or frozen section during surgery in order to achieve the necessary wide surgical excision which is the treatment of choice.

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