

Incisional Endometriosis – Two Case Reports

Sofianos Chrysis¹, Sofianos Constantinos²

1-Charlotte Maxeke Johannesburg Academic Hospital

2-Life Bedford Gardens Hospital

Correspondence to: Dr Chrysis Sofianos PO Box 79663, Senderwood, Johannesburg, 2145, South Africa, Email - sofianosc@gmail.com.

Abstract

Little has changed since Rokitansky described endometriosis in 1861. Incisional or scar endometriosis is rare, reported in 0.03-1.08% of women following obstetric or gynaecological surgery, in most cases after caesarean section. Its incidence is expected to rise with the increase in numbers of caesarean sections and laparoscopic gynaecological procedures. The classic triad of a painful abdominal mass, with the pain getting worse during menstruation and history of previous incision in the area is usually diagnostic but not always present. Two cases of incisional endometriosis are presented, with a suggested management approach given.

Introduction

Endometriosis is a condition where active endometrial tissue is found outside the cavity of the uterus. Endometriosis of the abdominal wall is very rare and, as a result of that, unknown to most clinicians; this condition presents a diagnostic challenge. Patients will present to a number of health professionals, namely surgeons, general practitioners or gynaecologists. The differential diagnosis varies from hernias, abscesses, granulomas, and other solid tumours, benign or malignant, primary or secondary.

Case Presentation

CASE 1:

A 25-year-old female referred by her gynaecologist for surgical assessment with a provisional diagnosis of abscess or foreign body reaction. History was that of a slow-growing abdominal mass at the centre of her lower abdomen, beneath her caesarean section scar. This was associated with severe pain for the previous three days. She had her first caesarean section ten years prior to presentation, followed by another caesarean section and two dilatation and curettage procedures. She last menstruated two weeks prior to admission. The examination revealed a non-mobile, hard mass situated beneath the centre of her Pfannenstiel incision scar. A CT Scan revealed a mass in the abdominal wall 23.5mm by 17.3mm

in size (Figure 1). Upon exploration in theatre, it was found to involve the sheath and extend into the peritoneal cavity. It was, subsequently, completely excised and the defect was closed with a mesh. The histology report showed the presence of endometriosis, with endometrial glands and stroma identified and haemosiderin-laden macrophages noted. After recovery, she was sent back to her gynaecologist for possible hormonal manipulation. Late questioning revealed no previous intra-peritoneal endometriosis. Her symptoms had completely disappeared at the one week follow-up. Follow-up two years later confirmed the absence of further symptoms of pain or swelling in her lower abdomen.

CASE 2:

A 29-year-old female was referred by her GP with an incarcerated incisional hernia for treatment. Her main complaint was that of a painful swelling in her right groin beneath the scar for her caesarean section performed 5 years prior to presentation. The pain had been present for almost 3 years but the previous day had become incapacitating. She had last menstruated seven days prior. It was difficult to ascertain whether the pain and swelling were associated with her periods. She denied previous pelvic pain or dysmenorrhea. A CT Scan of the area suggested that the swelling was indeed an incarcerated hernia, with an incarcerated loop of bowel in it (Figure 2). Exploration in theatre revealed a solid mass with cystic areas containing a brown-coloured fluid. No hernia was present. The mass as well as the adjacent sheath, into which it had grown, were excised. The small defect in the sheath was repaired with a 2/0 nylon suture. The histology confirmed endometriosis with endometrioma formation. Multiple endometrial-type glands were present. Endometrial stroma was identified and haemorrhage was noted. The patient had an uneventful recovery with no symptoms at the one week follow up.

Discussion

While endometriosis affects an estimated 89 million women of reproductive age worldwide (5-10% of all women), incisional or scar endometriosis is rare, reported in 0.03-1.08% of women following

obstetric or gynaecological surgery, in most cases after caesarean section (6). In a review of the English language literature Horton et al found only 29 articles with 455 patients from January 1951 to August 2006 describing abdominal wall endometriosis(1). The only limitation was that he included articles with 5 or more cases in his review.

The procedures commonly preceding incisional endometriosis are caesarean sections, laparotomies, laparoscopies and diagnostic gynaecological or obstetrical procedures. Besides the scars of open surgery, the trocar sites of laparoscopic surgery have been identified as sites of abdominal wall endometriosis(9). The regenerative capacity of pregnant endometrium especially in early pregnancy allows for easier implantation in the surgical wound (2). Viable endometrial cells from the opened uterus are transferred and transplanted by the operator into the incision. The cells multiply in the new area but continue to be under hormonal control, the same way as endometrial cells in the uterus. Thorough irrigation of the abdominal wound with saline after invasive gynaecological procedures is suggested in order to prevent endometriomas(7).

The classic triad of a painful abdominal mass, with the pain getting worse during menstruation and history of previous incision in the area is usually diagnostic but not always present. Horton et al found that out of 455 patients 96% presented with a mass, 87% presented with pain, the interval from surgery to presentation was 3.6 years and recurrence after resection was 4.3% (1). It is important to remember that the differential diagnosis includes incisional hernias, abscesses, hematomas, lymphadenopathy, other soft tissue tumours like lipomas, lymphomas, desmoid tumors, sarcomas, neuromas, stitch granulomas, sebaceous cysts, primary and secondary cancers (1).

Diagnostic modalities for endometrioma include ultrasound, computed tomography, MRI, fine needle aspiration with cytology and hook wire localization under ultrasound guidance. The diagnosis is confirmed by histopathologic analysis, which is the hallmark of diagnosis. Association of multiple islands of endometrial-type glands, endometrial stroma and hemosiderin laden macrophages seen in a Haematoxylin and Eosin slide are diagnostic of endometriosis.

Suggested management of scar endometriosis includes both surgical excision and hormonal suppression (3,4). The oral contraceptive pill, progestational and androgenic agents have been used. It is believed that hormonal suppression is only partially effective, only for a short term and associated with severe side effects (4,5). Stopping the hormonal treatment will lead to a recurrence soon after. Gonadotropin-releasing hormone agonists have also been suggested. They were found to cause

fast symptomatic improvement but did not decrease the size of the endometrioma (9). Adequate, wide, surgical excision is currently considered the definitive treatment (4,5). Less extensive surgery may lead to a recurrence.

Long term follow up is considered essential because of the possibility of malignant transformation of an incisional endometrioma (8).

Conclusion

Incisional endometriosis is a rare condition which may present atypically, to a number of health professionals. A high index of suspicion, especially in patients with previous abdominal surgery, will lead to an increased pick up of a condition that can cause debilitating pain. The gold standard of treatment is adequate wide surgical excision.

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