Case Report

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General surgeon's experience in managing extra pelvic endometriosis

Muhammad Eimaduddin Sapiee^{1*}, Roziana Ramli², Nor Syahaniza Waheeda Alias², Zailani M.¹, Ahmad Fazlin Nasaruddin³

¹Department of Surgery, ²Department of Obstetrics and Gynaecology, ³Department of Pathology, Hospital Sultanah Nur Zahirah, Kuala Terengganu, Malaysia

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*Correspondence:

Dr. Muhammad Eimaduddin Sapiee, E-mail: eimad0307@gmail.com

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ABSTRACT

Two unusual cases of extrapelvic endometriosis are discussed here. Both presented themselves to the general surgeons. Case 1 presented with cyclical painful abdominal wall mass at the left iliac fossa region. Ultrasound and computed tomography scan showed a solitary mass at the subcutaneous region and fine needle aspiration cytology revealed endometriosis. The patient underwent wide surgical excision and recovered. Case 2 presented with painless swelling at the left inguinal area whilst being pregnant. Surgical exploration was performed for 'left inguinal hernia' but an encysted mass was found in the inguinal canal which was excised. Histopathological examination reported endometriosis. Both cases were subsequently under gynaecological follow-up. It is important for the surgeons to include endometriosis as one of the differential diagnosis in the management of their female patients with mass or swelling.

Keywords: Extra pelvic endometriosis, Abdominal wall mass, Inguinal swelling

INTRODUCTION

Endometriosis is an enigmatic disease managed almost exclusively by gynaecologists. Some patients however ended up being seen and managed by general surgeons, particularly those with extrapelvic endometriosis. Extrapelvic endometriosis which has been reported in nearly every organ system of the human female body, is less common than pelvic disease and is often difficult to diagnose and more difficult to treat.¹

When surgeons encounter endometriosis in their practice, their lack of experience sometimes leads to delay in diagnosis and suboptimal management.

Therefore, it is important for surgeons to include endometriosis as one of the differential diagnosis in the management of their cases. We hereby report two unusual cases of extrapelvic endometriosis managed by the surgeons.

CASE REPORT

Case 1

A 35 years old lady was seen at the surgical outpatient clinic for a painful superficial abdominal mass. The mass was detected 1 year prior and has grown bigger with time. There was no association with bowel or urinary symptoms. The patient had a previous caesarean delivery but was otherwise well with no medical illness.

Clinical examination showed a 3×3 cm firm, tender, and fixed mass in the subcutaneous fat of the left iliac fossa region. The rest of the abdomen examination was normal. The patient had an ultrasound (Figure 1) and computed tomography (CT) scan (Figure 2-4) done which confirmed a solid left subcutaneous tissue tumour. Due to

the suspicious nature of the tumour, fine needle aspiration cytology (FNAC) was performed and the result was reported as 'endometriosis' (Figure 5). Retrospectively she admitted that the pain she experienced was cyclical in nature and the mass was most painful during menses. Wide local surgical excision of the tumour was done (Figure 6-8) and the patient recovered well and was subsequently managed by the gynaecologists.



Figure 1: Solid mass with mixed echo on ultrasound.



Figure 2: Abdominal wall mass seen on CT scan transverse view (arrow).



Figure 3: Abdominal wall mass seen on CT scan sagittal view (arrow).

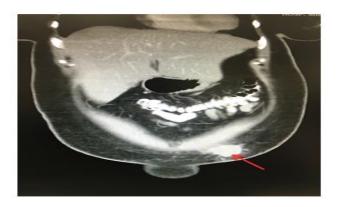


Figure 4: Abdominal wall mass seen on CT scan coronal view (arrow).

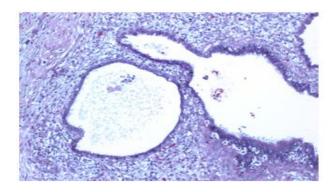


Figure 5: Presence of endometrial glands seen from excision of the lesion.

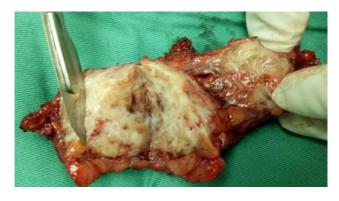


Figure 6: Cut section of the mass.



Figure 7: Surgical excision of the mass.

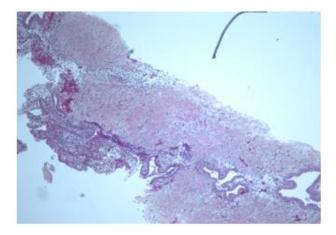


Figure 8: Scattered islands of endometrial glands and stroma.

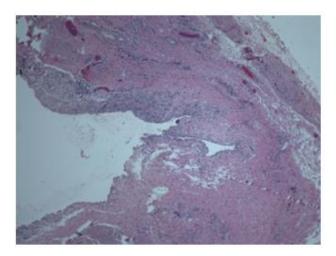


Figure 9: Fibro adipose and fibromuscular cyst wall lined by endometrial glands and stroma.

Case 2

The patient was 31 years old, G2P1 at 8 weeks pregnancy who was referred to the surgical outpatient clinic for reducible left inguinal hernia. She has an underlying diagnosis of uterine didelphys with right cervical stenosis and ipsilateral renal agenesis. Previous surgeries

comprised of diagnostic laparoscopy, dilatation of the right cervical stenosis, and caesarean delivery. She started to notice a painless swelling in her left groin since early pregnancy.

Clinical examination showed a 3x4 cm reducible mass at the left inguinal region which was diagnosed as left reducible indirect inguinal hernia. Surgical exploration is done in the 2nd trimester found an encysted mass in the inguinal canal instead of hernia. The mass was excised and histopathological examination confirmed endometriosis (Figure 9). The patient made an uneventful recovery and was followed up by the obstetrics and gynaecological team.

DISCUSSION

Endometriosis is an interesting disease. It is a condition characterized by the presence of endometrial cells outside the uterine cavity. Most patients with endometriosis are seen by the gynaecologists since the disease mainly affects the pelvic reproductive organs. Extrapelvic endometriosis refers to endometriosis which occurs at unusual sites including surgical scars, umbilicus, inguinal canal, bowel, appendix, bladder, lungs, kidney, and extremities. Extrapelvic endometriosis is an uncommon diagnosis, on average one case could be found within a vear or two in a single institution. Every now and then, patients present themselves to the surgeons most often in cases of extrapelvic endometriosis. Oh et al, identified 9 patients with abdominal wall endometriosis over a period of 11 years whereby 6 out of 9 patients presented themselves to the surgeons.² Narmeen et al reviewed 8 surgical cases of caesarean scar endometriosis in 5 years period.³ Out of 8 patients, 5 patients presented themselves to the surgeons and interestingly the other 3 patients were referred by the gynaecologists to the surgeons.

Abdominal wall endometriosis related to the caesarean scar is the most common type of extrapelvic endometriosis according to the literature.⁴ It normally develops in the subcutaneous area in 0.1% of women with previous caesarean section, thus the importance of including endometriosis as a differential diagnosis of subcutaneous swelling other than the usual surgical causes like abscess, lipoma, sebaceous cyst, inguinal hernia, incisional hernia and lymphoma.⁵ In case 1, the history of previous caesarean delivery along with cyclical pelvic pain during menses should have rung the bell early, however, menstrual history in surgical patients is rarely relevant and often missed out during history taking. This type of pain is also known as catamenial pain which is pathognomonic of endometriosis.⁶ Catamenial pain, however, is present in only 50% of patients. On the other hand, all types of pain either cyclic or noncyclic remained the major symptoms in more than 80% of patients with abdominal wall endometriosis.^{2,8}

Inguinal endometriosis is less common than abdominal wall endometriosis and Albutt et al, in 2014 found less

than 60 cases have been reported in the literature. It is more difficult to recognize and thus often confused with more common conditions such as hernia, lymphadenopathy, granuloma, soft tissue tumor, cyst, and hydrocele. Often it is diagnosed later by histological examination of the surgical specimen as in our case. Patients typically complain of painful swelling over the inguinal region and invariably will present themselves to the surgeons. Most cases of inguinal endometriosis have been reported on the right side. In

Our case is not a typical case since she has a left-sided painless inguinal endometriosis. Pregnancy hormones could have played a role in suppressing the active endometriotic cells in this case. There are conflicting reports on the association between inguinal and pelvic endometriosis. 10,11 In our case, diagnosis of pelvic endometriosis was already being made 4 years before during diagnostic laparoscopy. It is imperative to perform complete excision in extrapelvic endometriosis with wide surgical margins to prevent recurrence and for complete tissue diagnosis. 9,12 In case 1, wide local excision with a 1 cm margin was done for this purpose. Nonetheless, case 1 was already being diagnosed pre-operatively through FNAC. In any surgical cases without preoperative tissue biopsy but suspicious of extrapelvic endometriosis, it is wise for the surgeons to perform wide surgical excision to prevent future recurrence. Surgeons often use FNAC to aid in the diagnosis. FNAC is a quick, cost-effective, and accurate diagnostic tool to include in patients' management¹² however FNAC may cause new endometriotic implants to develop at the puncture site.¹⁴

Direct extension of endometrial tissue along the round ligament has been suggested as the possible pathogenesis of inguinal endometriosis while iatrogenic mechanical transplantations on incision scars during surgeries are the most accepted pathogenesis for abdominal wall endometriosis. 15,3 While nothing much could be done to prevent inguinal endometriosis, it is possible to prevent abdominal wall endometriosis. Certain measures could be undertaken during obstetric surgeries to avoid iatrogenic transplantation of endometrial cells. These include cleaning and irrigating abdominal wall wound thoroughly and vigorously with high-jet saline solution before closure, using different instruments and suture materials for uterine and abdominal closure, minimizing contact of swab sticks that have been used to clean the endometrial cavity and meticulous closure of parietal and visceral peritoneal layers during caesarean deliveries. 4,16-18 In view of the rarity of extrapelvic endometriosis, the effectiveness of all these measures has yet to be proven in clinical studies.

CONCLUSION

From time to time, general surgeons would encounter patients with endometriosis in their practice particularly extrapelvic endometriosis. Greater awareness of this unique gynaecological disease is necessary to prevent sub-optimal care. The presence of swellings in any part of the body in association with catamenial pain is diagnostic and often helps to rule out other more common surgical pathologies. In most cases, surgical excision is the treatment of choice with good results. Gynaecological referral for further treatment is required in cases with concurrent pelvic endometriosis.

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