CASE REPORT

A case of endometriosis presenting as an inguinal hernia

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SUMMARY

Endometriosis is a common clinical presentation for gynaecologists. Occasionally it can present to general surgeons as a swelling in the groin or abdominal wall. This condition should be included in the differential diagnosis in female patients. A 32-year-old woman with a 2-year history of a painful persistent lump in her right groin was referred to the general surgeons by her general practitioner. She was referred with a diagnosis of a suspected inguinal hernia. MRI excluded a hernia and exploration of the groin and subsequent histology confirmed the lesion to be an endometrial deposit.

BACKGROUND

Endometriosis is defined as the presence of normal endometrial mucosa outside of the uterine cavity.[1 2] Endometriosis is found almost exclusively in women of reproductive age. It is estimated to affect 5–10% of women, with diagnosis usually occurring in the third decade of life.[3] Deposits can be implanted in tissue during surgery and can present years later with pain and a palpable swelling.

An endometrioma is an endometriotic cyst. In the presence of an abdominal surgical scar, endometriosis is referred to as an abdominal wall endometrioma or surgical scar endometrioma.[1]

Surgical scar endometriomas have been described in the gynaecological literature, particularly in association with caesarean section scars. However, they are not as well recognised among general surgeons.[4] Endometriomas pose a diagnostic challenge because of their non-specific nature. They are often misdiagnosed as an incisional hernia, lipoma or abscess, or one of several other conditions, until surgical excision and histological studies confirm the diagnosis.[4 5]

CASE PRESENTATION

We report a case of a 32-year-old woman who was referred to the general surgeons by her general practitioner (GP) regarding a painful swelling in her groin. The GP suspected an inguinal hernia. The patient was reviewed in the surgical clinic. She had been symptomatic for approximately 2 years. On further questioning, she thought that the swelling had become more painful and increased in size. An ultrasound scan organised by her GP 1 year previously had proved inconclusive.

As part of her gynaecological history she explained that her groin pain was worse during her periods. Her medical history included a caesarean section 7 years previously via a low pfannenstiel scar. Otherwise she was fit and well with no documented history of endometriosis. On examination of her abdomen there was a palpable 3 cm right-sided swelling located in the groin area at the lateral aspect of her caesarean section scar. There was no cough impulse present and the area was tender to palpate. An initial diagnosis of an incarcerated incisional hernia was made; however, given the fact that the pain coincided with her periods, an endometrial deposit was also suspected. MRI was organised and reported a 2.3 cm diameter lesion, with a mixed signal intensity, superior to the rectus abdominis muscle and in proximity to her previous caesarean section scar. No hernias or other pelvic pathology was found. The radiologist concluded that it could be an endometrioma based on the patient's gynaecological history and MRI findings (figure 1).

The patient underwent a surgical exploration of her groin. At surgery, firm fibrotic tissue was encountered and excised completely. No hernia was found. She made an uneventful postoperative recovery. The tissue was histologically confirmed to be an endometrioma. She remains well 15 months postoperatively.

DIFFERENTIAL DIAGNOSIS

- Possible inguinal or incisional hernia
- Endometrioma
- Lymph nodes
- Soft tissue sarcoma

TREATMENT

There are numerous medical treatments available to manage intrapelvic endometriosis. The primary aim

Figure 1 MRI of the pelvis indicating the endometrial deposit.

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of all these therapies is to create an environment where there is little oestrogen. Consequently, the endometriosis is deprived of hormonal stimulation. This alleviates the patient's pain and prevents further cell growth.[6]

For extrapelvic endometriosis, medical therapies have shown to be ineffective. Surgical excision remains the treatment of choice and is curative in the majority of cases.

OUTCOME AND FOLLOW-UP

The patient made an uneventful postoperative recovery. Histology confirmed the excised tissue to be an endometrioma. She remains well 15 months postoperatively.

DISCUSSION

Endometrioma is a mass of endometriosis, a disorder characterised by the presence of endometrial mucosa in abnormal locations outside the uterus. There are numerous sites where extrapelvic endometriosis has been reported. These include lymph nodes, lungs, pleura, bladder, kidney, bowel, omentum, umbilicus, hernial sacs and abdominal walls.[7] Endometriosis involving the abdominal wall is a rare occurrence, however, it should be considered in the differential diagnosis of abdominal wall masses in females. The typical clinical scenario involves a parous female with a history of gynaecological or obstetrical surgery presenting with a painful nodule. The severity of pain and size of the nodule may vary with her menstrual cycle. In our case, the patient remained without a diagnosis for 2 years. A detailed gynaecological history and physical examination was important in formulating her diagnosis. The history revealed that the pain coincided with her menstruation. The clinical examination revealed a hard non-reducible palpable swelling located in the groin. There was no cough impulse present and it was tender to palpate. An initial diagnosis of an incarcerated incisional hernia was suspected. Based on the patient's gynaecological history of a cyclical increase in the size and severity of pain, an endometrioma was also included in the differential diagnosis. Of note is the negative history of previous endometrial disease. An initial ultrasonography scan (USS) proved unhelpful. MRI excluded a hernia and other serious groin and pelvic pathologies. During surgical exploration of the patient's groin, no hernia was found and an area of firm fibrotic tissue was excised. The patient's postoperative course was uneventful. The histology report revealed the mass to be an endometrioma.

There are many theories behind the pathophysiology of endometriosis. Intrapelvic endometriosis and extrapelvic endometriosis, not associated with surgical disruption of the uterus, are both thought to develop due to various reasons. These may include retrograde menstruation and haematological or lymphatic spread of endometrial cells.[8] Surgical scar endometriomas are believed to result from deposits of endometrial cells during surgical intervention. These cells are then stimulated by oestrogen to produce endometriomas. Although relatively uncommon, it is well documented in clinical practice that scar endometriomas occur with different types of incisions where contact has possibly occurred with endometrial tissue.[6] The endometriomas may develop 1–20 years postoperatively.[6] Examples include caesarean section, laparoscopy, tubal ligation and hysterectomy. Of these, caesarean section and hysterectomy are most common.[9] The incidence after caesarean section is difficult to determine, but estimates range from 0.03% to 0.47%.[10] Other authors have reported an incidence of 0.2% in all caesarean sections performed.[11] To make a definitive preoperative diagnosis of endometrioma is difficult. A diagnosis can be highly suggestive based primarily on clinical presentation, a thorough history and physical examination. This was the case in our patient, where the pain coincided with her periods, raising the suspicion of an endometrioma. Medical imaging plays a role in locating the mass and ruling out hernias and other conditions, for example, lipoma, abscess and suture granulomas. MRI remains the most useful imaging modality to exclude other pathology.

CONCLUSION

Endometrioma should be included in the differential diagnosis in female patients presenting with a swelling in the groin or abdominal wall. A history of endometriosis and gynaecological surgery should raise suspicion. However, as in our patient, a history of endometriosis is not essential. Greater awareness among clinicians will aid in early diagnosis and MRI is a useful imaging modality.

Learning points

- Endometrioma should be included in the differential diagnosis of any abdominal wall swelling in a female patient, especially if she is of childbearing age or the mass is near a previous surgical scar.
- A good history and physical examination can raise the clinical suspicion of an endometrioma and lead to an early diagnosis.
- Surgical measures should be taken to reduce the chance of extrapelvic endometriosis. These include careful cleaning and irrigation of the abdominal wall wound with saline before closure. Tissue should be sent for routine histology.
- MRI is the imaging modality of choice in excluding other differential diagnoses. Providing a good history for the radiologist is important.
- Medical therapies are ineffective in treating surgical scar endometriomas, and surgical excision remains the treatment of choice and is curative in the majority of cases.

Competing interests None.

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