CASE REPORT

Subcutaneous endometriosis: a rare cause of deep dyspareunia

Aruna Nigam

Department of Obstetrics and Gynaecology, Hamdard Institute of Medical Sciences and Research, New Delhi, India

Correspondence to

Dr Aruna Nigam,
prakasharuna@hotmail.com

SUMMARY

Endometriosis is a growth of endometrial tissue outside the uterine cavity which is responsive to hormonal stimulation. Extrapelvic endometriosis is less common of which skin is the most common site. The patient presents with mass, pain and cyclic symptoms. Subcutaneous endometriosis is very rare and has been reported only thrice in the literature. We report a case where the patient with lower abdominal pain and dyspareunia. Dyspareunia due to subcutaneous endometriosis has not been reported before when there is no evidence of intrapelvic endometriosis on laparoscopy.

BACKGROUND

Endometriosis is a growth of endometrial tissue outside the uterine cavity which is responsive to hormonal stimulation. It can occur in pelvic cavity or extrapelvic sites. Extrapelvic endometriosis is less common and generally involves appendix, lungs, umbilicus, peritoneum, nose and skin. The most common extrapelvic site of endometriosis is the skin which occurs following obstetric and gynaecological surgery.¹ The subcutaneous endometriosis is very rare and has been reported only thrice on the literature review.²⁻⁴

CASE PRESENTATION

A 32-year-old woman with one live issue presented with on and off right lower abdominal pain and deep dyspareunia for 4 years. She had a caesarean section performed for fetal distress 5 years ago. She was not using any contraceptive and has not conceived for the past 3 years. She had a normal menstrual cycle with dysmenorrhoea and pain more on the right side of the lower abdomen. Her bladder and bowel habits were normal. Her general and systemic examinations revealed no abnormality. On abdominal examination, a thin pfannenstiel scar of the caesarean section was present and she had vague focal tenderness in the lower abdominal area away from the midline. Speculum examination was unremarkable. Vaginal examination revealed normal-sized mobile uterus with tenderness in the right fornix and no mass was palpable. Her urine examination was normal and ultrasound of the lower abdomen and pelvis did not reveal any abnormality. She has received few courses of antibiotics in view of pelvic inflammatory disease (PID) in the past. Again she had been given a full course of antibiotics (doxycycline, metronidazole), anti-inflammatory analgesics with placentrex injection in view of PID. Her husband was also treated

simultaneously. The patient did not relieve completely, so she was undertaken for laparoscopy in view of chronic pelvic pain and infertility (for which she was not worried as her coital frequency was reduced to twice or thrice in a month because of severe dyspareunia). Laparoscopy revealed no abnormality or evidence of endometriosis. Chromotubation revealed bilateral patent tubes. But the patient continued to experience pain in the left lower abdomen. In view of normal laparoscopy and persistent focal tenderness in the lower abdomen, MRI was performed.

INVESTIGATIONS

MRI of the lower abdomen and pelvis revealed (figure 1, T2-weighted MRI showed hyperintense and isotense area in the region of the caesarean scar) evidence of subcutaneous mass in the lower abdominal wall in the region of the caesarean scar in the lateral part.

DIFFERENTIAL DIAGNOSIS

The differential diagnosis of any subcutaneous masses in the lower abdominal wall includes haematomas, injection granulomas, endometriosis, abscess, desmoids tumour, metaplasia or lymphomas. Other uncommon differential diagnosis includes suture granulomas, sarcomas and mesenchymal tumours, that is neurofibromas and peripheral nerve sheath tumours. In view of history of

Figure 1 T2-weighted MRI showing hyperintense and isotense areas in lower abdominal wall in the region of the previous scar.

CrossMark

To cite: Nigam A. *BMJ Case Rep* Published online: [please include Day Month Year] doi:10.1136/bcr-2013-202230

cyclical increase in pain and dyspareunia, the diagnosis of subcutaneous endometriosis was made.

TREATMENT

The patient was taken for incision line exploration which revealed endometriosis beneath the rectus sheath lateral to the midline which was widely excised with free margins.

OUTCOME AND FOLLOW-UP

The patient was relieved of pain postoperatively and conceived after 4 months of surgery.

DISCUSSION

Scar endometriosis is a known entity and any patient presenting with swelling and cyclical pain in a caesarean scar area is pathognomonic of scar endometriosis. Incidence of surgical scar endometriosis is 0.03–0.04%.⁵ However, if a patient presents without any swelling and only focal tenderness and dyspareunia, it is difficult to diagnose the subcutaneous endometriosis. One must elicit the history of cyclical increase in pain during menses. In this case the endometriotic area was mainly behind the rectus sheath which might be the reason of dyspareunia due to its proximity to the lower peritoneum. The pathogenesis of abdominal wall endometriosis is the direct inoculation of endometrial cells into the incision at the time of surgery.

Horton *et al*⁶ in their review concluded that the patients with abdominal wall endometriosis were noted to typically present 2–5 years after caesarean section, and presenting symptom is mostly a mass (96%), pain (87%) or cyclic symptoms (57%). In the present case, the patient presented with pain and dyspareunia which has never been reported before.

Although the fine needle aspiration cytology and the excisional biopsy are the gold standard for making a diagnosis, but in subcutaneous endometriosis where no mass is palpable, imaging modalities play a considerable role. The imaging modalities are non-specific, but useful in determining the extent of the disease and planning of operative resection, especially in recurrent and large lesions.

On ultrasound, abdominal wall endometriosis typically appears as a hypoechoic mass, which is usually solid appearing and often shows internal blood flow on Doppler examination but often missed if the history is misleading. The CT appearance of endometriosis is non-specific, that is solid ill-defined mass

with internal density similar to that of muscle and mild enhancement after intravenous contrast administration.⁷ On MRI, the abdominal wall endometriosis may appear isointense or mildly hyperintense to muscle on T1-weighted images and isointense or hyperintense to muscle on T2-weighted images as compared with hypointensity on T2-weighted images on ovarian endometriosis.³ These lesions frequently enhance on MRI after administration of intravenous contrast agent.⁷

Learning points

- ▶ Consider the diagnosis of scar endometriosis if the patient presents with swelling, pain and cyclic symptoms following any abdominal surgery.
- ▶ Fine needle aspiration cytology is diagnostic but CT and MRI with contrast enhancement are helpful in diagnosis of subcutaneous endometriosis. MRI should be included in the investigative work-up of such patients before surgery.
- ▶ Wide excision with free margin is the only treatment for the scar endometriosis.

Competing interests None.

Patient consent Obtained.

Provenance and peer review Not commissioned; externally peer reviewed

REFERENCES

- 1 Taff L, Jones S. Cesarean scar endometriosis. a report of two cases. *J Reprod Med* 2002;47:50–2.
- 2 Grassi CJ, Alday MR, Costello P. Computed tomography appearance of subcutaneous endometrioma. *J Comput Tomogr* 1985;9:157–9.
- 3 Banks KP. Subcutaneous endometrioma as an unexpected cause of chronic abdominal pain. *AJR Am J Roentgenol* 2003;181:1157.
- 4 Stein L, Elsayes KM, Wagner-Bartak N. Subcutaneous abdominal masses: radiological reasoning. *AJR Am J Roentgenol* 2012;198:W146–51.
- 5 Picod G, Boulanger L, Bounoua F, *et al*. Abdominal wall endometriosis after cesarean section: report of fifteen cases. *Gynecol Obstet Fertil* 2006;34:8–13.
- 6 Horton JD, DeZee KJ, Ahnfeldt EP, *et al*. Abdominal wall endometriosis: a surgeon's perspective and review of 445 cases. *Am J Surg* 2008;196:207–12.
- 7 Hensen JH, Van Breda Vriesman AC, *et al*. Abdominal wall endometriosis: clinical presentation and imaging features with emphasis on sonography. *AJR Am J Roentgenol* 2006;186:616–20.

Copyright 2014 BMJ Publishing Group. All rights reserved. For permission to reuse any of this content visit <http://group.bmj.com/group/rights-licensing/permissions>.
BMJ Case Report Fellows may re-use this article for personal use and teaching without any further permission.

Become a Fellow of BMJ Case Reports today and you can:

- ▶ Submit as many cases as you like
- ▶ Enjoy fast sympathetic peer review and rapid publication of accepted articles
- ▶ Access all the published articles
- ▶ Re-use any of the published material for personal use and teaching without further permission

For information on Institutional Fellowships contact consortiasales@bmjgroup.com

Visit casereports.bmj.com for more articles like this and to become a Fellow