CASE REPORT

Caecal endometriosis mimicking caecal tumour

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SUMMARY

Extra-pelvic endometriosis is a rare entity that presents extreme challenge to clinicians. Caecal endometriosis may pose a diagnostic dilemma preoperatively as it simulates various numbers of gastrointestinal pathologies with nonspecific manifestation. Even though endometriosis is a benign disease, invasion to the bowel can cause significant morbidity and mortality. Rectosigmoid junction is the most commonly affected bowel in extra-pelvic endometriosis while right sided colon involvement is rare. We report a case of a 29-year-old pregnant woman with incidental findings of caecal mass during lower segment caesarean section (LSCS) for foetal distress. The diagnosis of caecal endometriosis was made postoperatively by histopathological result of resected right colon. Distinguishing the diagnosis of the bowel endometriosis with colorectal cancer may be challenging, and this case emphasises the need to consider intestinal endometriosis in females at a reproductive age presenting with gastrointestinal symptoms and intestinal mass.

INTRODUCTION

Endometriosis is a benign gynaecological disease defined as the presence of endometrial tissue outside the uterine cavity, predominantly in the pelvic compartment. It is an oestrogen-dependent chronic inflammatory condition affecting women in the reproductive period with peak age in between 25 and 35 years. Up to 10% of the women reported to have endometriosis. The most frequent location of endometriosis is the ovary, pouch of Douglas and the uterosacral ligaments.[1] Bowel is the most commonly affected extra-pelvic location (3 to 12%), with majority in the rectosigmoid colon (50 to 90%). However, right sided colon involvement as depicted in this case report is a rare event with only 2 to 5% reported case.[1] With non-specific clinical manifestations and its rarity, distinguishing caecal endometriosis from other pathologies can be extremely difficult. In fact, only few similar cases have been reported to our knowledge.

CASE PRESENTATION

A 29-year-old woman at 31 weeks period of gestation presented with a sudden onset of continuous abdominal pain for one day. She denied any bowel symptom and significant past medical history. On physical examination, she was found to have a 30-weeks' gravid uterus and tenderness at right iliac fossa. After assessment by obstetric team, LSCS was decided for suspected abruptio placenta. During the operation, no abruptio placenta was found but there was localised pus collection at the right paracolic gutter with inflamed hard caecal mass. Several enlarged lymph nodes were also present along ileocolic vessels. Surgical team was summoned, and right hemicolectomy with ileocolic anastomosis was performed.

Histological findings revealed extensive decidualisation, involving the serosa, muscularis propria and submucosa, sparing the colonic mucosa, consistent with caecal endometriosis. This decidualised stroma was also infiltrated by mixed inflammatory infiltrates forming focal microabscess. Resected surgical margins were clear. She had uneventful recovery postoperatively and was well at one month post operation.

DISCUSSION

Since 1927, Sampson et al. theorised that endometriosis could result from retrograde deposition of endometrial remains during menstruation.[2] However, various theories have been proposed throughout the years, including the coelomic metaplasia of the peritoneum or the dissemination of endometrial particles through lymphatic and hematogenous pathways.[1] Nevertheless, the true pathogenesis of endometriosis remains unknown.

The common sites of endometriosis are the ovaries, cul-de-sac and uterosacral ligaments, while atypical nongynecological sites for the disease include the gastrointestinal tract, vermiform appendix, urinary tract and abdominal wall tissues, with additional reports on the pulmonary tract, lymphatic system, skin, musculoskeletal system and central nervous system.[2] These atypical sites pose significant challenge to ascertain the diagnosis.

It is noteworthy that the caecum is rarely involved, reported only 5% from of all intestinal endometriosis as the more common sites include the rectosigmoid, followed by small intestine and appendix. Clinically, caecal endometriosis can mimic several diseases such as Crohn's disease, appendicitis, diverticulitis and even colon cancer. Hence, distinguishing colonic endometriosis from other gastrointestinal pathologies can be arduous. It poses diagnostic dilemma to the clinician preoperatively as the clinical features of bowel endometriosis

This article was accepted: 04 March 2023
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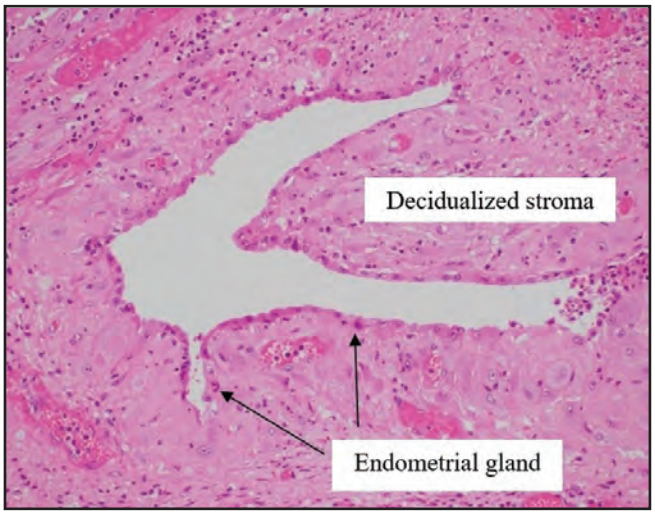

Fig. 1: Endometrial gland with surrounding decidualised stroma (20x)

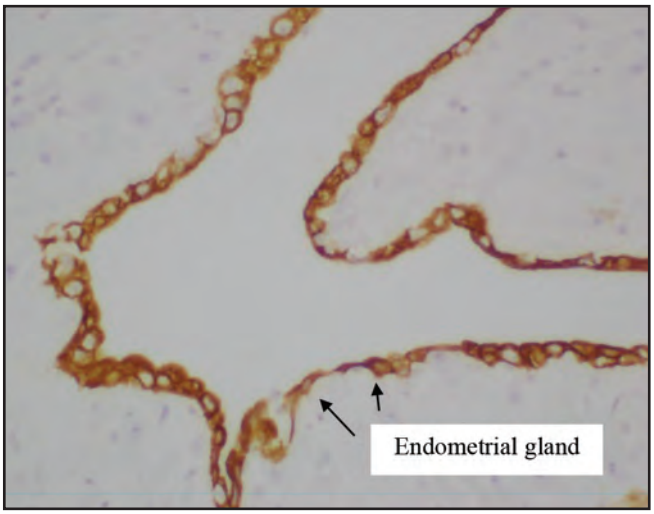

Fig. 2: CK7 highlights the endometrial gland (40x)

can be non-specific. These symptoms depend on disease localisation, size of nodule and depth of involvement of the bowel wall.[3] Thus, any cyclical pelvic symptoms should raise the suspicion of endometriosis.

Histologically, endometriosis with muscular infiltration was encountered in 71% of the cases and serosa infiltration in 9.6% of the cases. Penetration into the intestinal lumen is rare, reportedly found in 4.8% of cases.[3] Like a normal endometrial tissue, ectopic endometrial tissue in the caecum also underwent decidualisation in response to hormonal changes during gestation as depicted in the histological finding of our case (Figure 1). These endometrial stromal cells can invade through bowel wall causing inflammation. Immunohistochemical staining such as CK 7, is essential to confirm the lesion, is endometrial in origin.[3] The endometrioid glands are usually immunoreactive towards CK7 as portrayed by our patient (Figure 2).

Intestinal endometriosis is usually asymptomatic and most of the cases were found incidentally during surgery. Although no gold standard is universally accepted for the diagnosis of bowel endometriosis, magnetic resonance imaging (MRI) is one of the most used techniques with an 88% sensitivity and 98% specificity.[4]

Treatment is based on the clinical presentation of intestinal endometriosis. In case of endometriosis-related bowel obstruction, resection of the affected intestine is required, and 60 to 100% of patients reported an improvement after excision of deeply infiltrating lesions.[5] This is illustrated in our case, whereby patient made fully recovery after bowel resection. On the other hand, nonpenetrating lesion can be excised and followed by oestrogen suppression, or gonadotropin releasing hormone agonist (GnRHa).[1]

Surgery is still the treatment of choice to avoid neglecting malignant tumour and some complications such as perforation or bowel obstruction. Currently, there is no guidelines with high level of evidence existed specifying which lesions should be operated on, when this is indicated, and which standardised surgical technique is recommended. The preoperative differential diagnosis in this setting is almost impossible, resulting to the need for postoperative histological confirmation. Presentation as abdominal pain can be a clinical challenge due to absence of pathognomonic symptoms and can also masking as labour symptoms. Prompt and accurate clinical and radiological evaluation is necessary as complications of endometriosis such as bowel perforation and obstruction may require urgent surgical intervention. Ultrasound has limited role in diagnosing bowel-related mass. Adjunct axial imaging is also not possible due to hazard of radiation exposure to the foetus.

CONCLUSION

Our case demonstrates that despite its rarity, surgeons should aware that endometriosis may present as a colonic mass, and it should be considered in the differential diagnosis of females at fertile age presenting with abdominal mass.

ACKNOWLEDGEMENT

The authors would like to thank the Head, Department of General Surgery, Hospital Sultanah Nur Zahirah, Terengganu for permission to publish this article.

CONFLICT OF INTEREST

The authors declared no potential conflicts of interest with respect to the authorship, and/or publication of this article. The authors received no financial support for authorship, and/or publication of this article. Informed consent was obtained from the patient in this case report.

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