Unusual endometriosis mimicking disseminated cancer after hysterectomy in a young woman

Catarina Reis-de-Carvalho ^{1,2}, Catarina Castro,² Filipa Osório^{2,3}

¹PTCSRT, Harvard University, Cambridge, Massachusetts, USA
²Obstetrics, Gynecology and Reproductive Medicine, Centro Hospitalar Universitário Lisboa Norte EPE, Lisbon, Portugal
³Obstetrics-Gynaecology, Hospital da Luz, Lisbon, Portugal

Correspondence to

Catarina Reis-de-Carvalho;
 catarinareisdecarvalho@gmail.com

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DESCRIPTION

A 31-year-old woman with a recent onset of abdominal pain with lumbar irradiation and nausea was admitted to our center because of the finding of a suspicious intra-abdominal mass. The patient had a previous diagnosis of deep infiltrating endometriosis since 2009. She was followed in another hospital where she underwent two surgeries: a laparoscopic ovarian cystectomy and a myomectomy in 2009 and an open hysterectomy and bilateral ovarian cystectomy in 2015.

MRI (figure 1) revealed a broad, solid abdominal mass measuring 17×13×16 cm, with vegetations and haemorrhagic cystic areas and with no apparent relation with adnexal areas, firmly adherent to the rectosigmoid transition. She also had elevated serum cancer antigen (CA) 125 level (641 µ/mL), normal HE4 human epididymis protein 4 (HE4 151 pM) and ROMA (ovarian malignancy risk algorithm).

Diagnostic laparoscopy revealed a frozen pelvis, with multiple adhesions of the bowel that covered an abdominal–pelvic mass of about 15 cm, without an identified starting point. The upper abdomen had no changes. The surgeons' clinical impression was that it was a neoplastic process. Extemporaneous histopathological examination during surgery was inconclusive. Due to the strong suspicion of malignancy, the surgical team decided to convert to laparotomy.

During the procedure was performed adhesiolysis, excision of the retroperitoneal mass (figure 2) and bilateral salpingectomy. Omentectomy was performed because suspicious nodular lesions were identified in the epiploon. Lymphadenectomy of two clinically palpable lymph nodes in the left iliac artery bifurcation was also performed.

Contrary to what the macroscopic examination predicted, the postoperative pathology examination revealed that the mass was covered with a monolayer of normal-looking endometrial glands and stroma consistent with common endometriosis. The patient's recovery was uneventful. Three months after the operation, the patient was asymptomatic.

The aetiology of endometriosis is unclear. In this particular case, we can speculate that the mechanism involved in the formation of this mass was a coelomic metaplasia associated with an abnormal immune response that leads to cell growth, inflammation and fibrosis.¹ Endometriosis can be easily confounded with neoplasia and has itself a malignant transformation potential as high as 0.5%–1.0%.² The most common malignant tumours in this setting are endometrioid adenocarcinoma and clear cell adenocarcinoma.^{3,4}

This case is relevant because of the unusual presentation and the gross morphology of endometriosis, similar to a malignant tumour. In this case, the

Figure 1 Axial section of a T2-weighted pelvic MRI showing a multiseptate pelvic mass measuring 17×13×16 cm with haemorrhagic content in different stages of haemoglobin degradation, without fat content and with partly pseudoseptated and serpiginous appearance wrapped around itself, which seems to correspond to a probable haematosalpinx associated with areas of parietal thickening, without restriction to diffusion.

Figure 2 Surgical specimen that represents the retroperitoneal mass with 18×11×9 cm was adherent to the retrosigmoidal transition and was of hard consistency, irregular contours and whitish appearance. It is not possible to individualise any structures. Note that the mass does not have the typical grossly appearance of endometriosis, such as gelatinous lesions of reddish colour (light or dark), light colour (yellow or brown) or dark colour (black or blue).

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preoperative investigation supported the hypothesis of recurrence of endometriosis. However, the macroscopic appearance of the solid pelvic lesion was in favour of a neoformative process. It is unusual that the macroscopic appearance is contrary to the microscopic diagnosis, so this case reminds us of the difficulties in managing these cases even in experienced centres. Although it was not conclusive in our case, the intraoperative pathological examination (frozen-section analysis) increases the sensitivity and specificity for the patient risk classification and, thus, is a useful tool for surgical decision.⁵

Learning points

- ▶ Endometriosis' recurrence is possible after hysterectomy, especially in case of preservation of ovaries. Thus, isolated hysterectomy is a poor treatment for endometriosis, particularly in young women.
- ▶ Gynaecologists and oncologists should be aware that endometriosis may mimic ovarian malignancy.
- ▶ Multipoint biopsies and frozen-section analysis during surgery are important to increase the accuracy of diagnosis and treatment.

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ORCID iD

Catarina Reis-de-Carvalho <http://orcid.org/0000-0002-5962-1560>

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