

Ovarian recurrence of microinvasive endocervical adenocarcinoma 4 years following treatment with cone biopsy

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BACKGROUND

Isolated ovarian metastases following microinvasive cervical adenocarcinoma is an exceptionally rare occurrence. Traditionally, patients with such tumours are deemed low risk of lymph node involvement (<1%) and recurrence of tumour when appropriately treated and are therefore often managed conservatively, particularly when fertility preservation is preferred.

CASE

A 36-year-old nulliparous woman was managed overseas for a cervical lesion with a cold knife conisation, 4 years ago. Histopathology confirmed FIGO stage IA1, grade 1 cervical adenocarcinoma with a maximum diameter of 1 mm, 1.5 mm depth of invasion, arising in adenocarcinoma in situ (AIS) and associated CIN 3. AIS was confirmed at the endocervical margin. She was managed conservatively with 3-monthly Pap smears and endocervical curettages over 2 years which remained negative.

On emigrating to Australia, ongoing 6 monthly surveillance including HPV testing, remained negative. A pelvic ultrasound performed for investigation of subfertility identified a benign-appearing right ovarian cyst measuring 8 cm x 12 cm with no vascular or solid components. Following the development of pelvic pain 6 weeks later and stable imaging, a laparoscopic robotic right salpingo-oophorectomy was performed. Intraoperatively, the mass appeared as a classic dermoid cyst and following peritoneal washings, cyst rupture occurred on extraction.

Histopathology of the ovary and tube revealed metastatic cervical adenocarcinoma (p16+, HPV mRNA+) and intraoperative washings showed scant atypical cells. She subsequently had a PET scan which revealed some heterogeneous FDG activity in the remaining left ovary in the context of preparation for intrauterine insemination, cancelled the day of the PET.

An MRI performed showed no evident cervical lesions however revealed a spontaneously-conceived intrauterine pregnancy. After extensive counselling regarding expectant management during pregnancy versus chemotherapy, the patient commenced adjuvant carboplatin and paclitaxel in the second trimester of her pregnancy.

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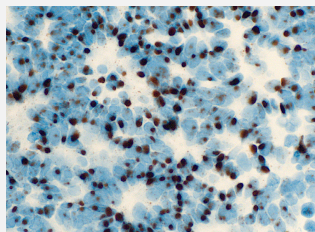


Image 1.
Histopathology of the ovarian cyst tissue with HPV mRNA expression

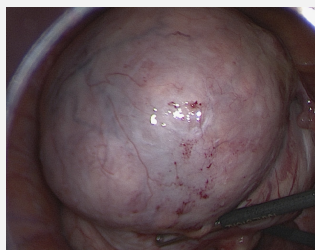


Image 2.
Intraoperative image of the right ovarian cyst

DISCUSSION

Though a rare occurrence, endocervical adenocarcinoma, including microinvasive presentations, have the potential for ovarian metastases. Case series of ovarian metastases of endocervical adenocarcinoma involving intramucosal involvement of the uterine corpus are associated with generally favourable prognoses when compared with primary cases involving stromal tissue (1).

The presence of AIS on endocervical margin in the case presented is known to be associated with increased risk of disease progression (2). As such, the Cancer Council Australia Cervical Cancer Screening Guidelines outline further excision to ensure clear margins in the context of incompletely excised AIS (3).

This case demonstrates the role of immunohistochemistry and HPV profile in determining the origins of the ovarian mass, as primary ovarian tumours do not contain HPV nucleic acid (1). A case series by Ronnett et al. of 29 cases of minimally invasive cervical tumours with ovarian metastases demonstrated identical HPV subtypes in the cervical primary and subsequent ovarian neoplasm (4). As in the case described, this case series also demonstrated strong expression of p16 in the ovarian metastases whilst non-HPV related tumours did not.

Furthermore, the case also reflects findings by Brockbank et al and Ronnett et al, in that these ovarian metastases were unilateral and, radiologically and macroscopically benign-appearing (5).