High Grade Endometrial Cancer Diagnosed 6 weeks Post Term Vaginal Delivery

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Case Summary

This case describes MB, a well 37yo female diagnosed with grade 3 endometrioid adenocarcinoma at 6 weeks post-partum. This is only the second reported case in the literature of a high-grade endometrial cancer diagnosed after a normal vaginal delivery.

Background & Literature Review

- Endometrial cancer is the 5th most prevalent cancer in Australian women[1]
- Median age at diagnosis is 61yo, with <5% of cases occurring in women less than 40yo[2]
- Co-existing endometrial cancer and pregnancy is rare, with only 43 reported cases diagnosed during pregnancy[3,4]
  - Majority diagnosed after 1st trimester pregnancy loss
- 13 reported cases of endometrial cancer diagnosed post-partum:
  - **Risk factors**: prevalence of traditional risk factors low; one obese patient and two patients with anovulation
  - **Presenting complaint** was most commonly abnormal postpartum bleeding
  - **Timing of diagnosis** was highly variable and occurred up to 15 months after delivery, with the earliest reported at one-month post-partum, due to recurrent secondary PPH
  - **Histopathological classification** showed mostly grade 1 or 2 disease (n=12), with grade 3 disease rare (n=1)
  - **Staging and outcome**:
    - Majority (n=10) were FIGO stage 1 and treated with primary surgery, with no evidence of disease recurrence over the reported follow up period (1 to 6 years)
    - 2 patients had Stage 2 and 3 disease, with 8 month and 3 year survival respectively

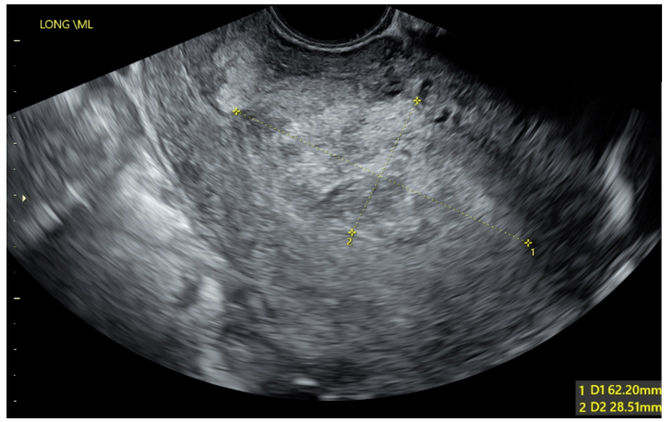

Figure 1. Pelvic ultrasound showing 62 x 29 x 44mm (40mL) heterogenous material.

Case Report

Obstetric course

- 37yo G2P1 with no significant medical history and a normal BMI
- At 34/40 had an unprovoked small antepartum haemorrhage; placenta was fundo-posterior
- At 37/40 had a normal vaginal delivery, with a ~300mL blood loss. Placenta was complete, and membranes incomplete
- Day 6 post-partum: passed retained products of conception (RPOC) *(Fig 3A)*. Ultrasound (US) showed 12mL of RPOC and an endometrial thickness (ET) of 26mm
- Day 29: US showed 40mL of RPOC and ET 37mm (*Fig 1*)
- Day 37: underwent a suction dilation and curettage
  - Histopathology showed **grade 3 endometrioid adenocarcinoma** with no evidence of RPOC *(Fig 3B)*

Management of endometrial cancer

- Referral to tertiary Gynaecology-Oncology centre
- CT CAP showed a bulky uterus and no metastatic disease
- At 7 weeks post-partum, underwent a **total laparoscopic hysterectomy, bilateral salpingo-oophorectomy and bilateral sentinel node biopsy**.
- Histopathology:
  - Grade 3 endometrioid adenocarcinoma in the lower uterine segment, invading into the outer half of the myometrium, but not cervical stroma (*Fig 2*)
  - Widespread lymph-vascular invasion; no direct invasion
  - Estrogen positive, weakly progesterone positive, loss of staining on MLH1 and PMS2 protein
  - Sentinel lymph nodes and peritoneal cytology normal
- FIGO stage 1B
- Multi-disciplinary team plan to complete **adjuvant chemotherapy** (6 cycles paclitaxel/carboplatin) then 45Gy pelvic external beam **radiotherapy**

Genetic testing

- Family history of breast cancer in grandmother and aunt
- Lynch Syndrome testing negative

References

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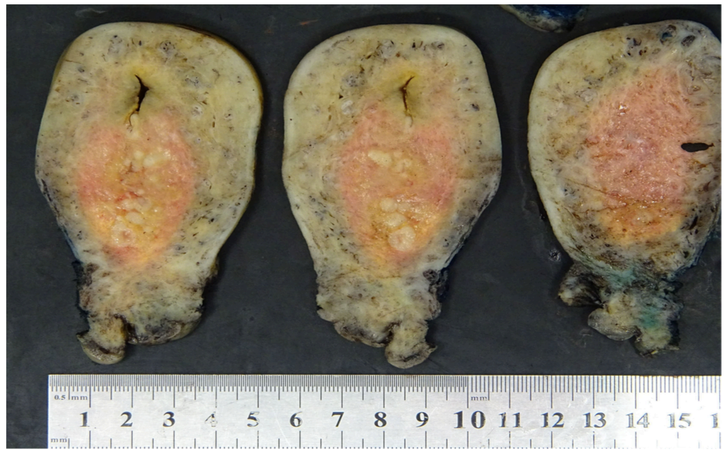

Figure 2. Surgical macro-specimen.

Discussion

- Co-existing endometrial cancer and pregnancy may reflect either pre-existing endometrial neoplasia or onset during pregnancy[3]
- Patients with pre-existing endometrial neoplasia are likely to have difficulty conceiving, due to a hostile endometrium that precludes implantation. Where implantation does occur, early miscarriage is common[3,4]
- The deeply invasive endometrial cancer may have caused the antepartum haemorrhage and led to early term delivery
- The tumour bulk was in the lower uterine segment, which together with the fundal placenta, likely facilitated the pregnancy progressing
- Endometrial cancer is a rare cause of post-partum haemorrhage. Curettage and histology should be considered where conservative treatment measures fail, to exclude this rare complication

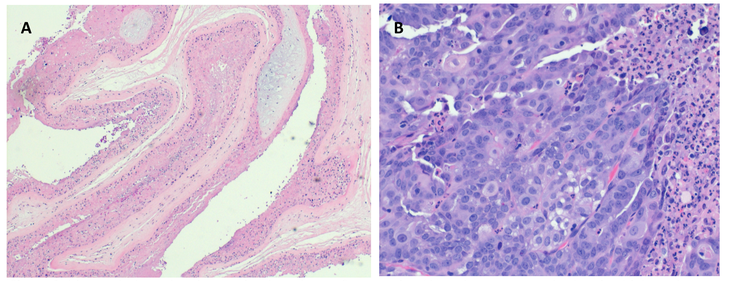

Figure 3: histopathology showing retained products of conception (A) and curette sample showing high grade endometrial adenocarcinoma (B).