Ovarian thecoma: a rare cause of endometrial hyperplasia

Georgia Chappell MD[†] Peter Klippenstein MD, FRCPS[†] Vivian Schutt MD, FRCPS[†]

Abstract

Background: In this case, management of endometrial hyperplasia led to the rare finding of an ovarian thecoma. Endometrial hyperplasia results from exposure to unopposed estrogen; rarely, this stems from a hormone-secreting tumour.

Case: A 79-year-old female presented with post-menopausal bleeding. Endometrial biopsy demonstrated simple hyperplasia. A dilation and curettage was performed; pathology showed endometrial polyps with foci of complex hyperplasia without atypia. A trial of Medroxyprogesterone Acetate was not successful, with continued bleeding. A repeat biopsy showed ongoing hyperplasia. At laparoscopic hysterectomy and salpingo-oophorectomy, an ovarian mass was found. Final surgical pathology found an ovarian thecoma.

Conclusion: This case illustrates the importance of considering rare causes of endometrial hyperplasia, such as a hormone-secreting tumour, particularly in the late post-menopausal patient.

Keywords: gynecology, ovarian masses, minimally invasive surgery

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Background

We present a case in which the common diagnosis of endometrial hyperplasia led to the rare finding of an ovarian thecoma. Endometrial hyperplasia is a relatively common presentation in the perimenopause, with an overall incidence of 133/100 000 women between the ages of 18–90.[1] Peak incidence is between the ages of 50–54.[1] Common risk factors include age, menopausal status, nulliparity, history of infertility, anovulation, and obesity, reflecting a history of unopposed estrogen.[1] In the late menopause, sources of unopposed estrogen are either iatrogenic or endogenous via aromatization through peripheral fat stores or, as this case demonstrates, a hormone secreting tumour.[2]

Thecomas are benign stromal ovarian tumors.[3] A rare tumor, they account for 1% of all benign ovarian neoplasms.[4] Generally, these tumors are unilateral. They most often develop in post-menopausal women in their sixth decade.[5] Thecomas are hormone-secreting tumors that may secrete estrogens, androgens, or a combination of both. Primary signs and symptoms include abnormal uterine bleeding, evidence of a pelvic mass, or both.[5] Upon investigation, endometrial hyperplasia or adenocarcinoma may be found as a result of estrogen-secreting thecomas. The diagnosis of an ovarian thecoma is a histologic diagnosis based on a tissue sample from surgical resection. Pre-operatively, the diagnosis may be suspected based on an ovarian mass found on imaging paired with features of hyperestrogenism or hyper-androgenism. Ovarian thecomas are benign, and surgical resection is curative.[5]

Case

A 79-year-old woman presented with post-menopausal bleeding 27 years after her last normal menses. Relevant medical history included primiparity, hypertension, hypercholesterolemia, atrial fibrillation, stroke, Parkinson's disease, hypertension, gastroesophageal reflux disease (GERD), and gout. Her BMI was in the normal range. On review of systems, she suffered from persistent nausea and vomiting. The patient's medications included warfarin, colchicine, diltiazem, domperidone, esomeprazole, Levodopa, Ramipril, rosuvastatin, and Tylenol #3.

As part of the initial workup, she had two ultrasounds three months apart. The findings were consistent between both scans, showing a thickened endometrium of 20 mm with both vascular and cystic changes and a possible endometrial polyp. The ovaries were described as normal on both occasions. An endometrial pipelle biopsy was then done, which showed simple hyperplasia. Given these results, she was referred for hysteroscopy with dilatation and curettage. During this procedure, multiple polyps were removed by curetting. Post-procedure pathology demonstrated

*Correspondence to: chappelg@myumanitoba.ca
[†]Department of Obstetrics and Gynecology, Max Rady College of Medicine, University of Manitoba

endometrial polyps with foci of complex hyperplasia without atypia.

The patient was counselled regarding treatment given the foci of complex hyperplasia with multiple polyps and ongoing post-menopausal bleeding. She ultimately chose a trial of Medroxyprogesterone Acetate (MPA) for 3 to 6 months with a follow up endometrial biopsy after the initial course of medication. She continued to experience bleeding and stopped the MPA. A repeat biopsy was performed and showed endometrial hyperplasia with morular changes mimicking atypia. Total laparoscopic hysterectomy with bilateral salpingo-oophorectomy and washings was therefore arranged approximately six months after her original ultrasound.

The surgery was performed with no complications. Intraoperative findings included a right ovarian cyst, yellow and irregular in appearance. Final pathology showed endometrial complex atypical hyperplasia with right ovarian thecoma. The patient's postoperative course was unremarkable. Her nausea and vomiting resolved immediately following surgery, and she was discharged on post-operative day 1.

Conclusion

Given the presence of an estrogen-secreting tumour, conservative medical management was not effective in this case and surgical intervention was ultimately required. This case illustrates the importance of considering rare causes of endometrial hyperplasia, such as a hormone-secreting tumour, particularly in the late post-menopausal patient with no other risk factors for hyperplasia such as obesity or a history of chronic anovulation. An interesting point about this case is the normal appearance of the patient's ovaries on imaging; this meant that coming to the eventual diagnosis of a hormone-secreting tumour without surgical intervention would have been extremely difficult. Overall, this case is an excellent example of the natural history of the ovarian thecoma and its association with endometrial hyperplasia.

Key points

1. In general, endometrial hyperplasia is caused by exposure to unopposed estrogen.
2. Endometrial hyperplasia may not respond to conservative management.
3. Consider rare causes of endometrial hyperplasia, such as a hormone-secreting tumour, particularly in the late post-menopausal patient.

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