

Coexistence of endocervical cancer and Brenner tumor of the ovary. Diagnostic difficulties

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Summary

Ultrasound sonography (USG) imaging in a post-menopausal woman with uterine bleeding revealed an endometrial polyp. Two diagnostic tests: curettage of the canal and the endometrium and hysteroscopy failed and resulted in perforation of the cervical canal. Uterine excision with adnexa was performed. Histopathological examination, in addition to the polyp as revealed by USG, showed adenocarcinoma in the cervical uterine canal [adenocarcinoma in situ (AIS)], which could have been the reason why it was not possible to collect material from the uterus. Surprisingly, a small Brenner tumor was also found in the ovary. In cases where diagnostic material from the canal and endometrium in post-menopausal women cannot be obtained, excision of the uterus with adnexa seems to be the best diagnostic and therapeutic course of action.

Key words: Endometrial polyp; Hysteroscopy; Adenocarcinoma canalis cervix uteri; Brenner tumour of the ovary.

Introduction

Bleeding from the genital tract in the post-menopausal period indicates pathological changes taking place in the reproductive organs. Causes can originate from every location: the cervix, endometrium, myometrium, fallopian tubes, and ovary. In most cases, the cervix and endometrium are responsible.

The most common changes in the cervix are cervical polyps and cancers. Endometrial bleeding is most often caused by endometrial polyps, endometrial hyperplasia, less frequently cancers, and fibroids expanding into the endometrium. Occasionally, the cause of bleeding is coagulopathy, at this age, is associated with the use of anticoagulant drugs [1-4].

The diagnostic procedure includes, in addition to gynecological examination, cytology and colposcopy, and standard transvaginal ultrasonography (USG) [5-8]. The diagnostic procedure includes a biopsy in the case of an abnormal cytological result from the cervix or the removal of a cervical polyp. In the case of changes in the endometrium, the procedure is based on European Society for Medical Oncology (ESMO), European Society of Gynaecological Oncology (ESGO), and European Society for Radiotherapy & Oncology (ESTRO) recommendations [9]. Depending on the ultrasound image, endometrial biopsy with the use of a test, curettage of the cervical canal, and the uterus, or hysteroscopy are elements of the procedure [5, 6, 9].

Case Report

A 51-year-old woman with a postmenopausal vaginal bleeding was diagnosed and treated in Clinic of Oncology, Gynecological Oncology Department in 2018. She is para 2 and her last delivery was in 1992. Her last Pap smear was performed two years ago and was within normal limits. She was using oral contraceptives for 22 years and had been taking combined estrogen and progestogen hormonal replacement therapy for two years, three years after her menopause at the age of 45. Her past medical history was unremarkable, with no serious illnesses or surgeries, aside from tonsillectomy in childhood. Her family history for oncological diseases was not relevant.

Vaginal bleeding appeared in March 2018, was moderate in amount, painless, and had a sudden onset. She was hospitalised in a regional hospital in April 2018 where she underwent dilation and curettage of uterus. Histopathological results showed fat tissue and blood clots without any endometrial tissue assessment. In May 2018 the patient complained again of postmenopausal vaginal bleedings. She was admitted to Clinic of Oncology, Gynecological Oncology Department for hysteroscopy. On admission, during gynaecological examination, vulva, vagina walls, and cervix were normal, and discharge was clear; in bimanual examination of uterus and ovaries, no abnormal masses and tenderness were found. In pelvic transvaginal ultrasound the uterus was anteverted, anteflexed, and the overall uterine size was 43×35 mm. Centrally, inside the uterine cavity oval structure, 27×27 mm in size, without hypervascularity in power Doppler was seen. Endometrial thickness was 7 mm. Both ovaries were small, atrophic, and without any abnormalities.

Hysteroscopy with liquid media at a pressure 80 mmHg was performed in general anaesthesia. After passing with the hysteroscope the cervical canal without any resistance, no anatomical landmarks of uterine cavity were observed, and small



Figure 1. — Uterine intraoperative longitudinal cut.

intestine was visualised. The false passage was immediately recognized and the hysteroscope was withdrawn. The next day, patient underwent abdominal hysterectomy with bilateral salpingo-oophorectomy. The uterus was cut longitudinally, in uterus polyp 1.5 cm in size was found (Figure 1). On fourth day after surgery, without any postoperative complication, the

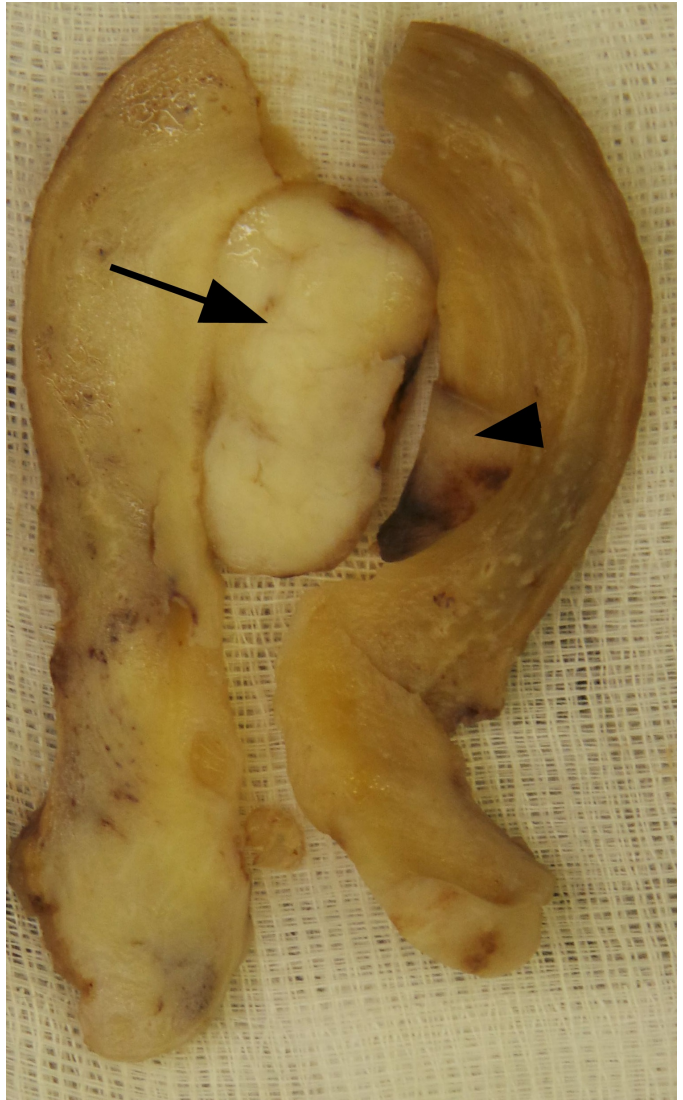


Figure 2. — Cross section of the uterus shows a subendometrial leiomyoma (→) and the polyp (▶) in the endometrial cavity.

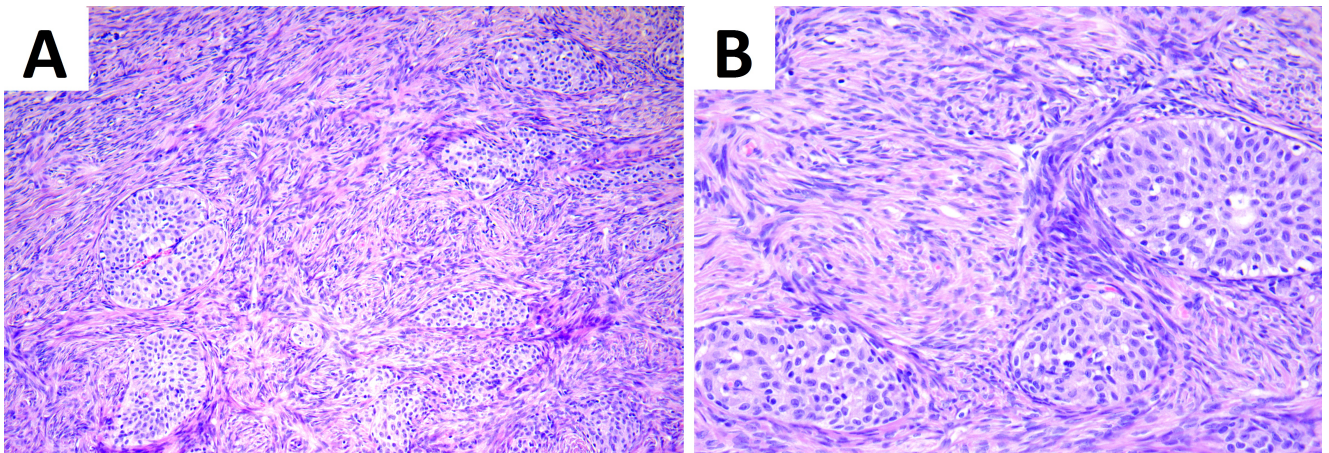


Figure 3. — The tumor cells of the right ovary are arranged in the nests of epithelial cells with some degree of atypia, H&E, A) $\times 100$ and B) $\times 200$.

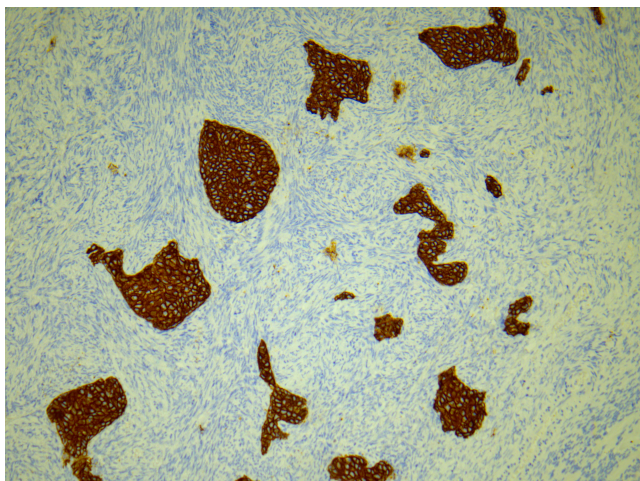


Figure 4. — Borderline Brenner tumor. The tumor cells stain positive for CK AE1/AE3 ($\times 100$).

patient was discharged from hospital.

Grossly, the resected specimen consisted of the entire uterine with tubes and ovaries. The uterine body was symmetrical and measured 4.5 \times 4.0 \times 2.5 cm. The cervix was 2.5 cm in length. Ectocervix was smooth, glistening, and measured 2.0 cm in greatest diameter. The right ovary measured 2.0 \times 1.0 \times 0.5 cm and the right fallopian tube was 5 cm in length. The left ovary measured 3.0 \times 2.0 \times 1.5 cm and the left fallopian tube was 5.5 cm.

The cross sections revealed a few findings in the uterus. There was a polyp in the uterine cavity, 2 cm in greatest diameter and a mural nodule which measuring 3.0 \times 2.0 \times 1.5 cm (Figure 2). Serial sections of the right ovary revealed a solid, yellowish to brown lesion 0.7 cm in diameter and corpora lutea. Sections of the left ovary showed corpora albicantia and corpora lutea. There was no apparent findings on gross examination of the cervix. Representative sections of specimen were submitted and routinely processed.

Microscopically, the lesion of the right ovary was limited to the stroma of the ovary. It consisted of round to oval and a few irregular nests of epithelioid, transitional cells within a fibromatous, abundant stroma. The pleomorphic cells were round, polygonal, and some on them with atypical features of intermediate grade. They had distinct cell membranes and eosinophilic to clear cytoplasm. The mitotic figures were rare (< 1 per 10 HPFs), and there was no necrosis. (Figure 3).

Immunohistochemically the tumor cells stained for: pankeratin (keratin AE1/AE3), p16, p53, WT1, CD10, (Figure 4), and Ki67 in less than 1% of tumor cells. They were negative for inhibin and CK 20, confirming the diagnosis of borderline or “proliferative” Brenner tumor of the ovary. Another microscopic findings was endocervical adenocarcinoma in situ. The tumor was found incidentally with the largest size of 1.5 cm. It was limited to the endocervix with the minimal surgical margin of 1.2 cm. The minor microscopic findings included: endometrial polyp, subendometrial leiomyoma, and endosalpingiosis of the left ovary.

Discussion

The cause of bleeding in the described patient was complex: a large endometrial polyp and an ongoing neoplastic process in the cervical canal. The most likely cause of abrasion failure and hysteroscopy was a cancerous lesion in the cervical canal - adenocarcinoma in situ (AIS), or possibly prior electrocoagulation of cervical erosion. The most accurate diagnostic method of endometrial pathology is hysteroscopy, with sensitivity over 96% and specificity over 74% [6], which was unfortunately unsuccessful. The correct result of the cytological examination was not fully explained. Most likely, the inaccuracy was due to the evaluation of squamous cells in the absence of cervical canal cells and the lack of exponents of the viral infection [10-12].

In the presented case, a small Brenner tumor with borderline malignant traits was also found in the ovary. Brenner tumors are rare changes; they constitute 1-2% of all ovarian tumors. Large Brenner tumors can cause numerous ailments such as pressure and a feeling of fullness in the abdomen and pain. Small Brenner tumors are usually found by chance, as in the presented patient [13, 14].

Conclusion

If the bleeding from the genital tract and established pathology (endometrial polyp) cannot be explained, uterine excision in a postmenopausal woman seems to be a good therapeutic choice.

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