

# Office hysteroscopy for the diagnosis of endometrial cancer - An interesting case report

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## Abstract

**Introduction:** Postmenopausal bleeding (PMB) is defined as bleeding from the genital track one year after the cessation of menses. About 1 in 10 women with postmenopausal bleeding will be diagnosed with malignancy.

**Case presentation:** A 62 year old female patient who presented to the gynecological clinic with two incidents of vaginal bleeding in the last 60 days. The gynecological examination and the transvaginal ultrasound did not reveal any signs of pathology. An office hysteroscopy and biopsy was performed and the histopathological examination revealed findings consistent with adenocar-

cinoma of the endometrium. The patient underwent a laparoscopic total hysterectomy and bilateral salpingo-oophorectomy.

**Conclusion:** This case report highlights the contribution of office hysteroscopy as a diagnostic tool in women with PMB, as it has a higher sensitivity compared to dilatation and curettage as well as to a biopsy acquired with a pipelle.

**Keywords:** office; hysteroscopy; endometrial; cancer; ca; diagnosis; sensitivity; postmenopausal; vaginal; bleeding

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## Introduction

Postmenopausal bleeding (PMB) is defined as bleeding from the genital track one year after the cessation of the menses. About 10% of women that present with PMB are diagnosed with primary or secondary malignancy.

Out of this percentage about 80% are diagnosed with endometrial cancer with the remaining 20% being cervical cancer or ovarian cancer<sup>7</sup>.

## Case Presentation

A 62 year old female patient, multiparous (P2), with a BMI <25, attended the outpatient clinic due to two episodes of postmenopausal vaginal bleeding in the last two months. The patient's last period was 10 years ago. She did not smoke or consume alcohol. She was on an angiotensin receptor antagonist along with a diuretic to treat hypertension as well as statins to treat hypercholesterolemia. The patient re-



**Figure 1.** Transvaginal ultrasound images of the endometrial thickness and the hysteroscopic appearance of a suspicious endometrial mass

ported that she underwent chemotherapy to treat acute lymphocytic leukemia fourteen years ago. Her Pap smear and gynecological examination five years ago were normal.

The gynecological examination revealed an atrophic cervix consistent with the patient's age, and a vaginal and a cervical smear were obtained. The transvaginal ultrasound performed revealed a uterine size in accordance with the patient's age and no pathology within the adnexa uteri. The endometrium was less than 3 mm in thickness, and a small collection of intrauterine fluid was found (Image 1). In-office hysteroscopy was performed using NaCl 0,9% and a 2.9 mm diameter optic camera, which revealed a suspicious cauliflower mass originating from the anterior vaginal wall and protruding in the endometrial cavity. Biopsy from the mass was obtained and the histopathological findings were consistent with adenocarcinoma of the endometrium.

Further imaging tests were performed (MRI) which revealed the widening of the intrauterine cavity, with the presence of a lesion. Lymph node size was within normal limits. A total laparoscopic hysterectomy with bilateral salpingo - oophorectomy was performed, after acquisition of the patient's formal consent. The duration of the surgery was 97 minutes with minimal intraoperative loss of blood.

The pathology report results revealed a normal sized uterus (6.5 x 5.5 x 4.8 cm) and a cervical length of 3.5 cm. The infiltration of the endometrium was about 50%, with neoplastic cells of indistinct boundaries, uniform and hyperchromatic nuclei. Signs of

infiltration of the blood vessels of the ectocervix and endocervix were not detected. The high degree of differentiation as well as the rest of the findings classified the lesion as stage IA. The patients follow up with an upper and lower abdomen CT scan 6 months and 1 year post operatively was found to be within normal limits.

## Discussion

In PMB it is crucial to follow the proper line of investigation and tests to reach a diagnosis<sup>2,4</sup>. Following clinical examination a transvaginal ultrasound should be performed and depending on the thickness of the endometrium (if it is below 4 mm then the risk for malignancy is less than 4% whilst if it is more than 4 mm then the risk for malignancy rises significantly) further exams can be issued. The presence of fluid in the intrauterine cavity is associated with malignancy in 25% of the cases<sup>9</sup>.

If diagnosis cannot be concluded or if unexplained bleeding occurs again further steps must be taken. Dilatation and curettage is the most common next step, requiring anesthesia and having a diagnostic accuracy of 85% in detecting malignancy of the endometrium. An office hysteroscopy without acquisition of a biopsy sample will miss significant pathology in 3 - 5% of the cases. Endometrial biopsy with a Pipelle or a Vabra aspirator, in spite of being well tolerated due to their 3 mm diameter, sample only 4% of the endometrial cavity with a varying detection sensitivity of 67-97%<sup>3,6,10</sup> (Van Doorn HC et al./ 2007, Dijkstra et al. 2000, Gull et al. 2001). A Vabra

aspirator can sample about 40% of the endometrial surface but the acquisition itself is more painful and the cost of the examination is higher.

In conclusion, endometrial biopsy with the methods described above, is not adequate to provide diagnosis in higher risk groups<sup>5</sup>. The gold standard for endometrial investigation is biopsy taken under hysteroscopic guidance which reaches a sensitivity of almost 100%<sup>8</sup>. In our case although the endometrial thickness was less than 4 mm, we had significant histopathological results from the biopsy acquired under hysteroscopic guidance which altered the management of the case, therefore the use of any of the other methods of endometrial sampling could miss the detection of these significant pathological findings resulting in an insufficient diagnosis and increasing the patients morbidity and mortality.

### Conclusion

The combination of hysteroscopy and histopathological examination of a lesion in postmenopausal women can increase the detection sensitivity up to almost 100% whilst dilatation and curettage has a detection rate of about 85%. ■

### Authors' Contributions

A. Daniilidis: Project development, Data Collection  
 A. Stamkopoulou: Manuscript writing  
 N. Panteleris: Manuscript writing  
 F. Carcea: Data collection  
 E. Assimakopoulos: Project development, Data Collection  
 A. Besharat: Manuscript writing

### Conflict of interest

Angelos Daniilidis, Nikolaos Panteleris, Anthoula Stamkopoulou, Stylianos Kogeorgos, Fausto Carcea, Efstratios Assimakopoulos and Alexander Besharat declare that they have no conflict of interest.

### Informed Consent

This article does not contain any studies with human or animal subjects performed by the any of the authors.

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