



# Atypical Endometrial Hyperplasia or Endometrial Cancer in A 65-Year-Old Woman: A Case Report

Lucian Șerbănescu <sup>1,2</sup>, Dragoș Brezeanu <sup>\*1,2</sup>, Mădălina Boșoteanu <sup>1,2</sup>, Raluca Ioana Vodă <sup>1,2</sup>, Vadym Rotar <sup>2</sup>, Paris Ionescu <sup>1,2</sup>, Ana-Maria Brezeanu <sup>1,2</sup>

<sup>1</sup>Ovidius University of Constanta, Romania.

<sup>2</sup>County Clinical Emergency Hospital “Sf. Ap. Andrei”, Constanta, Romania.

\*Correspondence should be addressed to Dragoș Brezeanu; [brezeanudragos@gmail.com](mailto:brezeanudragos@gmail.com)

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## Abstract

Atypical endometrial hyperplasia is a condition that denotes the presence of precancerous lesions in the endometrial layer of the uterus. This condition is often linked with several risk factors such as early menarche, nulliparity, diabetes, and obesity.

Recently, a 65-year-old woman visited Saint Andrew Hospital Constanta with complaints of postmenopausal menstrual bleeding. Upon examination, her uterus was found to be enlarged, similar to the size of a uterus in the fifth month of pregnancy. Additionally, the uterine wall was relatively firm. To diagnose the condition, the patient underwent a curettage procedure based on transvaginal sonography and magnetic resonance imaging results.

The pathological findings confirmed the presence of atypical endometrial hyperplasia. Fortunately, the patient was cured after undergoing a total hysterectomy with bilateral adnexectomy.

This treatment approach is often recommended for patients with this condition. In conclusion, it is essential to obtain a histo-pathological sample from patients at menopause with suspect intrauterine images that may suggest malignancy. This helps in the early detection and proper management of atypical endometrial hyperplasia.

**Keywords:** *Endometrial hyperplasia, Endometrial cancer, Magnetic resonance imaging, Ultrasonography*

## Introduction

Endometrial hyperplasia is considered a precursor of some types of endometrial cancer. The World Health Organization (WHO) classifies endometrial hyperplasia as hyperplasia with atypia and endometrial hyperplasia without atypia <sup>[1,2]</sup>.

Endometrial hyperplasia with atypia is the least common type of hyperplasia but is the type most likely to progress to endometrial carcinoma in 30-50% of cases. In 29% of cases, endometrial hyperplasia can develop into endometrial carcinoma within five years if not treated in time due to the continuous effect of estrogen <sup>[3,4]</sup>.

Cystic endometrial hyperplasia affects approximately 121/100,000 women/year. Current estimates report the incidence of endometrial hyperplasia to be around 133-208/ 100,000 women/year in Western countries and 37/100,000 women/year in Korea <sup>[5-7]</sup>.

Risk factors include obesity, hypertension, and diabetes mellitus. Furthermore, worldwide, there is an increase in the incidence of endometrial hyperplasia, especially in postmenopausal women, which parallels the progressive aging of the population and the increase in the prevalence of obesity <sup>[8]</sup>.

The most common symptom of endometrial abnormalities is abnormal uterine bleeding, and further Investigation of the cause poses a significant diagnostic challenge for gynecologists <sup>[9]</sup>.

The value of magnetic resonance imaging (MRI) in the assessment of women with endometrial hyperplasia and its role in the diagnosis of myometrial invasion or coexistence of cancer is not well known <sup>[10]</sup>.

After a first curettage diagnosis that reveals complex endometrial hyperplasia with atypia, because of its progression to endometrial cancer, most women with this kind of histopathological result undergo hysterectomy as primary treatment <sup>[11]</sup>.

## Case report

We are reporting a unique instance of atypical endometrial hyperplasia in a 65-year-old female patient who was admitted to the Saint Andrew Hospital Constanta due to postmenopausal menstrual bleeding. The patient had been experiencing irregular vaginal bleeding for six months.

She was classified as overweight, with a body mass index of 30 kg/m<sup>2</sup>. Based on her medical history, we noted that she had never given birth and had not engaged in sexual activity in recent years. She was a non-smoker and non-drinker, and her occupation was that of a homemaker. She denied exposure to toxic chemicals, poisons, or radioactive materials.

The patient had a history of hypertension and diabetes mellitus for a decade, both of which were being managed with medication.

During a gynecological exam, an enlarged uterus was discovered, resembling the size of a uterus at five months of pregnancy. Minimal vaginal bleeding was also present during the exam.

All paraclinical exams were normal. Further evaluation of the uterine cavity was conducted through transvaginal sonography and MRI, which revealed an 89mm lump with a partial honeycomb-like appearance (see Figures 1 and 2).

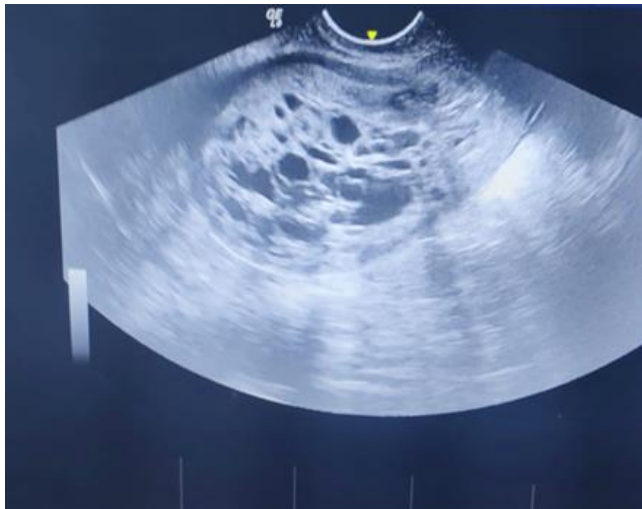


Figure 1: Transvaginal Echography- Honeycomb-like appearance

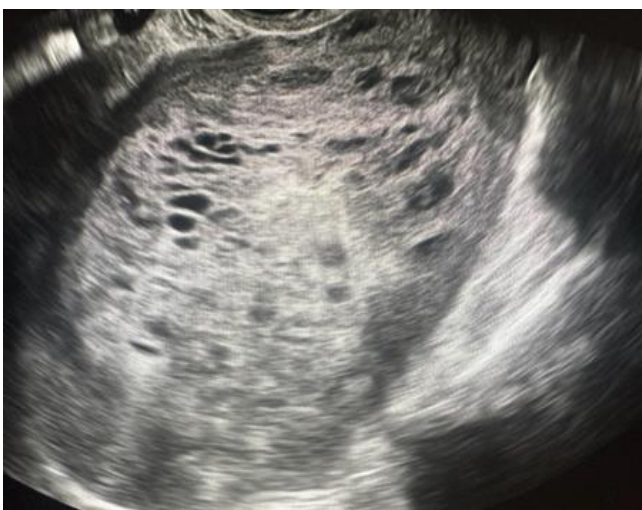


Figure 2: Transvaginal Echography- Honeycomb-like appearance

Figures 1 and 2- No normal uterine cavity line was noted. The cluster that was approximately 89 mm × 75 mm × 87 mm in size. Several different dark liquid areas, as part of the honeycomb-like appearance

The MRI also showed abnormal signal focus and intensity in the intrauterine cavity. Due to the sizable abnormality (measuring 91mm x 92mm x 91mm), the initial diagnosis was serous carcinoma.

Based on the results of transvaginal sonography and magnetic resonance imaging, a curettage was performed. While performing the biopsy curettage, a significant amount of serous-citrine liquid was externalized, from which a specimen was collected for cyto-bloc, along with endometrial tissue that had a discrete cerebriform appearance. Pathological examination revealed findings consistent with atypical endometrial hyperplasia. Following the

histopathological exam, the patient was cured with a total hysterectomy with bilateral adnexectomy (Figures 3 and 4).



Figure 3: Hysterectomy piece- macroscopical appearance

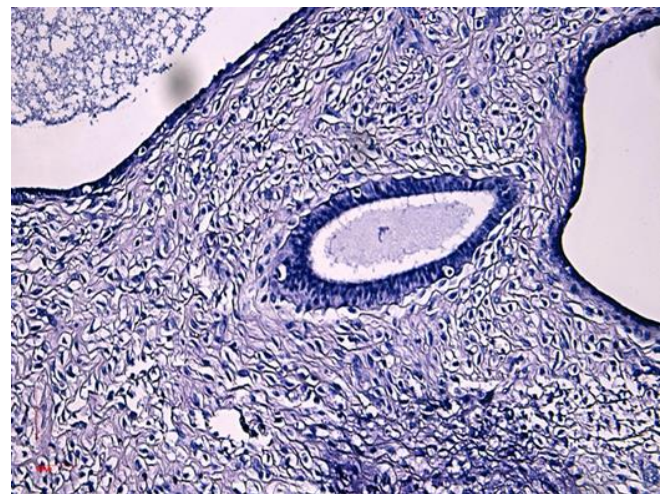


Figure 4: Atypical endometrial Hyperplasia

## Discussions

Endometrial cancer identification can be challenging for radiologists and gynecologists due to the complexities of the endometrial cavity. MRI has been shown to correctly identify all cases of endometrial cancer among patients with complex endometrial hyperplasia with atypia, but it also has a high false positive rate of 46% [12].

Additionally, while MRI is moderately sensitive and specific in detecting myometrial invasion in endometrial cancer, it has limited predictive value when used to assess the absence of myometrial invasion [13]. When it comes to postmenopausal women, an endometrial thickness of 1mm to 4mm reduces the chances of endometrial cancer to 1%, with a thickness of less than 5mm considered the average cut-off value [14,15].

The sensitivity of transvaginal ultrasonography in diagnosing atypical endometrial hyperplasia can vary between 59.7% and 100% [16].

Several risk factors are associated with endometrial hyperplasia, including age, nulliparity, obesity, genetics, diabetes mellitus, menopause, and ovarian tumors such as granulosa cell tumors [17]. In one patient's case, they had five of these risk factors, including age, menopause, obesity, nulliparity, and diabetes mellitus.

While obtaining tissue samples through dilatation and curettage is a common method for detecting complex endometrial hyperplasia with atypia in women with abnormal uterine bleeding,

less than 50% of the uterine cavity is sampled in around 60% of these procedures [18,19].

In some cases, a total hysterectomy may be necessary, which is performed in 75-80% of women with atypical hyperplasia according to studies [20]. Regarding our case, we finally performed a total hysterectomy after the final pathological finding.

## Conclusion

When treating menopausal patients who experience irregular vaginal bleeding, it is crucial to conduct a thorough investigation to determine the cause. In cases where transvaginal ultrasound and/or MRI indicate the presence of an intrauterine lump that may be malignant, obtaining a detailed pathological report can provide valuable information for determining the most appropriate therapeutic approach. This report can help to confirm or rule out the presence of cancerous cells, which can guide medical professionals in making informed decisions about the patient's care.

## Ethics approval and consent to participate

The Commission of Ethics of the hospital approved the case report.

Written informed consent was obtained from the patient for publication of this case report and any accompanying images. A copy of the written consent is available for review by the Editor-in-Chief of this journal.

## List of abbreviations

NA

## Data Availability

NA

## Conflicts of Interest

The authors declares that there is no conflict of interest regarding the publication of this paper.

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## Authors' contributions

All authors read and approved the final manuscript. All authors discussed the results and contributed to the final manuscript.

S.L. collected the data, conceived and designed the analysis

A.B. designed the analysis

D.B. wrote the paper

V.R., I.P. performed the analysis

M.B., R.I.V., performed the anatomopathological examination

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