

Endometrial Carcinoma With Prominent Squamous Differentiation In A Postmenopausal Woman: A Case Report

Niharika¹, Vijaya Koothan², Sowmiya Ravi³

¹Postgraduate, Department of Obstetrics and Gynecology, Shri Sathyasai Medical College and Research Institute

²Professor and Head of the department, Department of Obstetrics and Gynecology, Shri Sathyasai Medical College and Research Institute

³Assistant Professor, Department of Obstetrics and Gynecology, Shri Sathyasai Medical College and Research Institute

Corresponding Author- Niharika

nih131099@gmail.com

ABSTRACT

Background: Endometrial Carcinoma is the most common gynecological malignancy in the postmenopausal age group. Squamous differentiation is an uncommon histological variant that may pose diagnostic challenges, particularly in distinguishing it from primary cervical malignancy. **Case Presentation:** We report a case of a postmenopausal woman, who presented with complaints of postmenopausal bleeding. Imaging revealed a thickened endometrium. Histopathological examination of the endometrial sampling suggested invasive carcinoma with extensive squamous differentiation, raising a differential diagnosis between cervical and endometrial origin. The patient underwent staging laparotomy with total abdominal hysterectomy with pelvic lymphadenectomy. Final histopathological examination confirmed the diagnosis of endometrioid carcinoma with squamous differentiation with involvement of bilateral fallopian tubes in the absence of myometrial invasion. **Conclusion-**This case highlights the diagnostic challenge posed by squamous differentiation in endometrial carcinoma and demonstrates an unusual pattern of tumor spread to the fallopian tubes without myometrial invasion. Recognition of such atypical presentations is essential for accurate diagnosis, staging, and management.

Keywords: Endometrial carcinoma, Squamous differentiation, Postmenopausal bleeding, Case report

How to Cite: Niharika,1 Vijaya Koothan,2 Sowmiya Ravi3, (2026) Endometrial Carcinoma With Prominent Squamous Differentiation In A Postmenopausal Woman: A Case Report, *Journal of Carcinogenesis*, Vol.25, No.1, 435-437

1. CASE REPORT

A 49-year-old postmenopausal woman, Para 2 living 2, with complaints of postmenopausal bleeding for 5 days associated with passage of clots and pain abdomen was admitted for further evaluation and management in our department of obstetrics and gynaecology. Patient was obese with a BMI of 31.2 kgs/m². She was a known case of Type 2 Diabetes mellitus and Systemic hypertension on regular medication. No other known co-morbidities. No other remarkable history. Her general examination was normal. Abdomen was soft, non-tender. Per speculum revealed normal cervix and vaginal wall. On per vaginal examination, uterus was bulky and no other significant abnormality noted. Pap smear done on two occasions were found to be negative for intraepithelial lesion or malignancy. Ultrasound abdomen showed a thickened endometrium of 11mm thickness. MRI pelvis revealed consistent findings with of the USG; a possibility of adenomyosis and a few prominent lymph nodes involving bilateral inguinal regions. There was no evidence of any adnexal masses. Her blood investigations were within normal limits. The patient subsequently underwent a hysteroscopy guided endometrial sampling. Histopathological examination of the sample showed invasive carcinoma with extensive squamous differentiation, raising a differential diagnosis of primary cervical carcinoma versus endometrial carcinoma. Based on the histopathological findings and consensus from the multidisciplinary tumour board, patient was planned for and subsequently underwent definitive surgical management with total abdominal hysterectomy, bilateral salpingo-oophorectomy, and pelvic lymphadenectomy. The specimens were sent for Histopathological examination. Intra-operatively uterus appeared bulky, bilateral tubes were thickened and ovaries were normal. No ascitic fluid, no obvious peritoneal deposits and the omentum appeared grossly normal. Nodes appeared normal. Post operative period was uneventful.



Figure 1: Hysteroscopy showing polypoid growth

Figure 2 : Hysteroscopy showing fluffy endometrium

2. RESULTS

Histopathological examination of the surgical specimen (total abdominal hysterectomy with bilateral salpingo-oophorectomy and pelvic lymphadenectomy) revealed endometrioid carcinoma with squamous differentiation, with a tumour size measuring 1.7 x 0.3 cm. There was no evidence of myometrial invasion, cervical stromal involvement, serosal involvement, or lymphovascular space invasion. However, bilateral fallopian tubes were involved by the tumour, while both ovaries were free of the disease. All surgical margins were negative for malignancy. All retrieved pelvic lymph nodes were negative for metastatic deposits.

Based on the histopathological findings, the tumour was staged as pT3aN0Mx, corresponding to FIGO Stage IIIA1 disease. Notably, the case demonstrated an extrauterine spread of the tumour to the bilateral fallopian tubes in the absence of myometrial invasion, representing an unusual pattern of disease spread. Associated adenomyosis was noted, which was also not involved by the tumour.

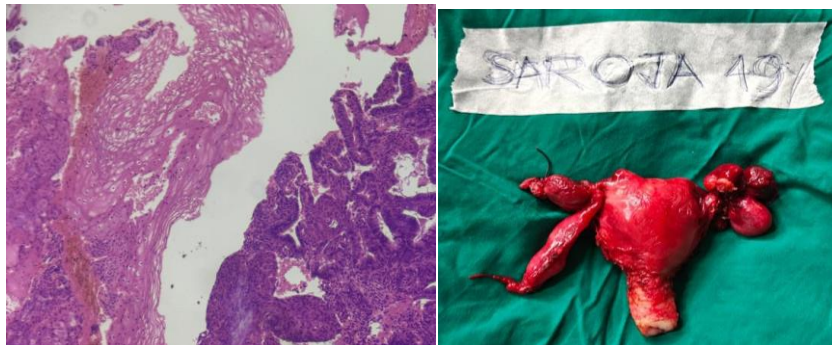


Figure 3: Histopathology image :- Endometrium showing squamous differentiation

Figure 4 : Specimen :- Uterus with cervix and bilateral fallopian

3. DISCUSSION

Endometrial carcinoma is the most common gynecologic malignancy in postmenopausal women, with endometrioid adenocarcinoma being the predominant histological subtype. Squamous differentiation is a recognized but relatively uncommon histopathological feature, reported in approximately 13–25% of endometrioid carcinomas. However, its clinical and prognostic significance remains a subject of ongoing debate.

Squamous differentiation in endometrial carcinoma is characterized by the presence of solid sheets or nests of squamous cells within an otherwise glandular tumor. Historically, these tumors were classified as adenoacanthoma or adenosquamous carcinoma, but current classifications group them under endometrioid carcinoma with squamous differentiation. The main diagnostic challenge arises in differentiating such tumors from primary cervical squamous cell carcinoma, particularly in small biopsy samples, as seen in our case where initial histopathology raised a differential diagnosis between cervical and endometrial origin.

In the present case, the patient had typical risk factors for endometrial carcinoma, including obesity, type 2 diabetes mellitus, and hypertension, which are known to be associated with unopposed estrogen exposure. The clinical presentation with postmenopausal bleeding further aligns with classical manifestations of endometrial malignancy.

A notable and unusual finding in this case was bilateral fallopian tube involvement in the absence of myometrial invasion. Typically, tumor spread in endometrial carcinoma follows a predictable pattern beginning with myometrial invasion, followed by lymphovascular dissemination or direct extension. Tubal involvement is usually associated with advanced disease and often coexists with deep myometrial invasion or serosal spread.

The presence of isolated adnexal or tubal involvement without myometrial invasion is rare and suggests alternative mechanisms of spread. Several hypotheses have been proposed in literature, including:

- Trans-tubal dissemination of tumor cells
- Surface spread via endometrial cavity
- Multifocal synchronous lesions (less likely in this case)

This atypical pattern has been previously described but remains poorly understood. Such cases are still classified under FIGO Stage IIIA disease, which has important implications for adjuvant therapy and prognosis.

The prognostic significance of squamous differentiation itself is controversial. Some studies suggest no independent adverse impact when compared to conventional endometrioid carcinoma, while others indicate that poorly differentiated squamous components may be associated with worse outcomes. However, most recent literature supports that prognosis is more strongly determined by established factors such as stage, grade, lymphovascular space invasion, and depth of myometrial invasion rather than the presence of squamous differentiation alone.

In our case, despite the absence of myometrial invasion and lymphovascular space involvement, the presence of bilateral tubal involvement upstaged the disease to Stage IIIA, highlighting the importance of comprehensive surgical staging. This case underscores the need for careful pathological evaluation and awareness of unusual metastatic patterns, which can significantly alter staging and subsequent management.

4. CONCLUSION

This case highlights a rare presentation of endometrioid carcinoma with extensive squamous differentiation demonstrating extrauterine spread to bilateral fallopian tubes in the absence of myometrial invasion. Such atypical patterns of dissemination pose diagnostic and staging challenges. Recognition of this entity is crucial, as it has significant implications for accurate staging and management. Multidisciplinary evaluation and thorough histopathological assessment remain essential in guiding optimal treatment strategies.

REFERENCES

1. Zaino RJ, Kurman RJ. Squamous differentiation in carcinoma of the endometrium: a critical appraisal of adenoacanthoma and adenosquamous carcinoma. *Semin Diagn Pathol.* 1988;5(2):154–71.
2. Lax SF. Pathology of endometrial carcinoma. *Adv Exp Med Biol.* 2017;943:75–96.
3. Kurman RJ, Carcangiu ML, Herrington CS, Young RH, editors. WHO classification of tumours of female reproductive organs. 4th ed. Lyon: International Agency for Research on Cancer; 2014.
4. Zaino RJ, Kurman RJ, Diana KL, Morrow CP. The significance of squamous differentiation in endometrial carcinoma. *Cancer.* 1991;68(10):2293–302.
5. Abeler VM, Kjørstad KE. Endometrial adenocarcinoma with squamous differentiation: a study of 112 cases. *Gynecol Oncol.* 1991;42(2):145–50.
6. Clement PB, Young RH. Endometrioid carcinoma of the uterine corpus with unusual patterns of spread. *Am J Surg Pathol.* 1992;16(2):113–25.