

A Case Report on Brenner Tumour of Ovary in a Postmenopausal Woman

Anima Prasad ^{1*}, Namrata Sinha ², Shalini Mishra ², Amrish Kumar ³

¹Professor, Department of Obstetrics & Gynaecology, T.S. Misra Medical College & Hospital, Lucknow, Uttar Pradesh, India.

²Assistant professors, Department of Obstetrics & Gynaecology, T.S. Misra Medical College & Hospital, Lucknow, Uttar Pradesh, India.

³Ex-Associate Professor, Department of Pathology, ASMC, Shahjahanpur, Uttar Pradesh, India.

***Corresponding Author:** Anima Prasad, Professor, Department of Obstetrics & Gynaecology, T.S. Misra Medical College & Hospital, Lucknow, Uttar Pradesh, India.

Received date: August 25, 2025; **Accepted date:** October 07, 2025; **Published date:** October 13, 2025

Citation: Anima Prasad, Namrata Sinha, Shalini Mishra, Amrish Kumar, (2025), A Case Report on Brenner Tumour of Ovary in a Postmenopausal woman, *Archives of Medical Case Reports and Case Study*, 10(2); DOI:10.31579/2692-9392/243

Copyright: © 2025, Anima Prasad. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Abstract

This is a case of a 54-year-old woman presenting with complaints of postmenopausal bleeding for one month and vaginal discharge for twenty days. After thorough evaluation and necessary investigations, a staging laparotomy was performed, followed by total abdominal hysterectomy with bilateral salpingo-oophorectomy. Intraoperatively, a 14 cm × 8 cm × 8 cm left tubo-ovarian mass was identified and removed along with the uterus, cervix, right tube, and right ovary. Histopathological examination revealed that the left tubo-ovarian mass had a benign Brenner tumour of the ovary.

Key words: tubo-ovarian mass; brenner tumour; postmenopausal bleeding; histopathology; benign ovarian neoplasm

Introduction

Brenner tumour of the ovary is a rare epithelial-stromal neoplasm, classified under 'Surface Epithelial Tumours' of the ovary. It constitutes about 1–5% of all ovarian neoplasms, and the vast majority (over 90%) are benign [1,2]. These tumours are most frequently diagnosed in women between the fifth and seventh decades of life, commonly in the postmenopausal period [3].

The clinical presentation of Brenner tumours is often vague or asymptomatic, leading to their incidental detection during imaging or surgery for unrelated conditions [4]. Symptomatic cases may present with abdominal or pelvic pain, distension, a palpable mass, or postmenopausal bleeding [5,6]. Radiological findings are non-specific, and definitive diagnosis relies on histopathological evaluation, which reveals nests of transitional (urothelial-like) epithelial cells embedded in a dense fibrous stroma [2,9].

We present here, a case of a large benign Brenner tumour of the ovary in a postmenopausal woman who presented with postmenopausal bleeding and vaginal discharge, to highlight the diagnostic and therapeutic approach to this rare entity.

Case Presentation

A P6L6, 54 years old woman presented with complains of post-menopausal bleeding and discharge per vaginum, in T.S. Misra Medical College & Hospital, Lucknow. On examination abdomen was soft, non-tender. Per speculum examination showed parous cervix with curdy white discharge. Bimanual examination revealed that uterus was of 8-10 weeks pregnant-uterus size, mobile, deviated towards left, groove between uterus and adnexa

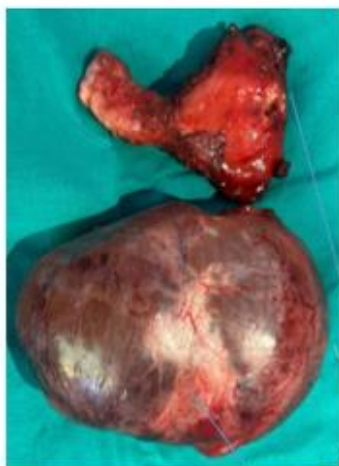
was not felt, left fornix was shallow, right fornix was deep and fullness was present in posterior fornix.

All necessary investigations were sent and reports were found to be within normal limits. Tumour markers –Serum CEA 0.68 ng/ml, Serum CA 19.9 was 17.86 U/ml, Serum Beta HCG 1.10 m IU/ml Serum LDH 188 u/L and Alpha fetoprotein 1.00 IU/ml, all were found to be within normal range.

Sonography revealed thickened endometrium (ET-20 mm) with large anechoic lesion with nodular walls, peripheral solid components showing vascularity and few internal septations in the left adnexa measuring 13 cm x 7.5 cm x 8.5 cm, ovaries could not be visualized separately. There was no ascites and no pleural effusion. Endometrial biopsy revealed non-secretory endometrium. CECT (Contrast-Enhanced Computed Tomography) and CEMRI (Contrast-Enhanced Magnetic Resonance Imaging) showed left tubo-ovarian mass with thickened endometrium.

Pre-anesthetic check-up was done. Staging laparotomy followed by total abdominal hysterectomy with bilateral salpingo-oophorectomy was planned.

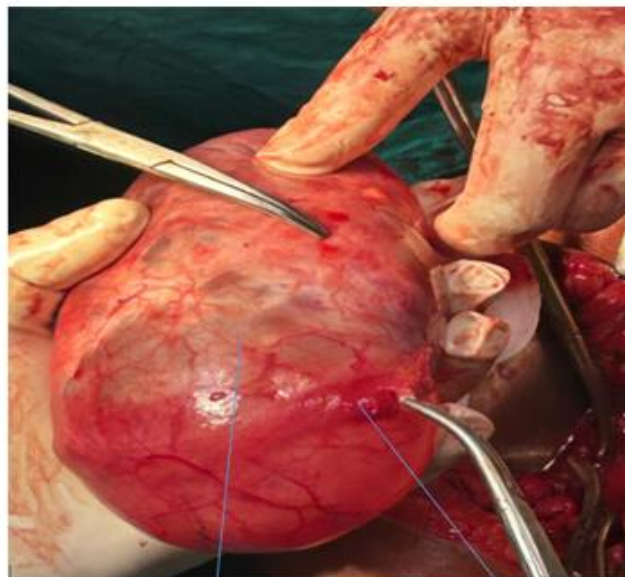
During laparotomy, a 14 cm x 8 cm x 8 cm oval, smooth, cystic, thin-walled left tubo-ovarian mass was seen. Peritoneal washing was sent for cytology. The uterus along with, cervix, left Tubo-ovarian mass, right ovary and right fallopian tube was removed. Obtained sample was sent for histopathological examination. Post operative period was uneventful. Patient was discharged on the 7th day. HPE report revealed Benign Brenner tumor of the ovary forming tubo-ovarian mass. Peritoneal washing was unremarkable.



Brenner tumour
Uterus & cervix (with right tube & ovary)



Brenner tumour of ovary



Brenner tumour of ovary (left tube-
ovarian mass)

Fallopian tube

Discussion

Brenner tumours are uncommon ovarian neoplasms derived from the surface epithelium and stroma, first described by Fritz Brenner in 1907 [1]. They are usually unilateral and benign, with borderline or malignant variants representing less than 5% of all Brenner tumours [11,12]. The typical age of presentation is postmenopausal, with a mean age of around 50–60 years [3].

Most Brenner tumours are small (< 5 cm) and asymptomatic, detected incidentally during surgery or imaging for other conditions [4]. However, large tumours may cause abdominal distension, pressure symptoms, or rarely

postmenopausal bleeding [5,6]. The present case is notable because of the large tumour size (14 cm) and presentation with bleeding and discharge, mimicking a malignant ovarian mass.

Radiologically, benign Brenner tumours are often seen as well-defined solid or mixed solid-cystic adnexal masses, occasionally with calcifications [9,10]. Because these imaging findings are non-specific, differentiation from other benign ovarian lesions—such as fibroma, thecoma, or serous cystadenoma—is challenging. Hence, histopathology remains the cornerstone of diagnosis. The characteristic features include epithelial nests

resembling transitional (urothelial) cells within a fibrous stroma. The nuclei are often grooved, and no mitotic activity or stromal invasion is seen [2,9].

In the present case, histopathology confirmed the benign nature of the tumour, with no evidence of atypia or invasion. Total abdominal hysterectomy with bilateral salpingo-oophorectomy was chosen as the definitive management, appropriate for a postmenopausal woman, both for diagnosis and to exclude coexistent malignancy [4,8].

The prognosis for benign Brenner tumours is excellent after surgical excision, and recurrence is extremely rare [5,10]. In contrast, borderline or malignant Brenner tumours, though rare, can exhibit local invasion or metastasis, necessitating close follow-up and adjuvant therapy [11,12].

This case underscores the importance of considering Brenner tumour in the differential diagnosis of adnexal masses in postmenopausal women presenting with abnormal bleeding. Awareness of this entity can help avoid overtreatment of benign disease and ensure optimal patient outcomes.

Conclusion

Benign Brenner tumour of the ovary is a rare neoplasm that may occasionally present as a large pelvic mass in postmenopausal women. Because of its non-specific clinical and radiological features, histopathological evaluation remains essential for diagnosis. Surgical excision is curative in benign cases, and prognosis is excellent.

References

1. Kurman RJ, Carcangiu ML, Herrington CS, Young RH. WHO Classification of Tumours of Female Reproductive Organs. 4th ed. Lyon: IARC; 2014.
2. Han G, Gilks CB. Brenner tumor of the ovary: a review. *Histopathology*. 2016;69(2):158–164.
3. Scully RE. Classification of human ovarian tumors. *Environ Health Perspect*. 1987;73:15–25.
4. Duhan N, Singh S, Rajotia N, Sirohiwal D, Sen J. Brenner tumor of ovary: an incidental finding. *J Midlife Health*. 2011;2(1):43–45.
5. Sahoo S, Satpathy S, Mishra P, Samal S. A rare case of benign Brenner tumor of the ovary presenting with postmenopausal bleeding. *J Clin Diagn Res*. 2017;11(8):ED01–2.
6. Sridevi V, Sridevi G, Prabhakar K, Srinivas S. Benign Brenner tumor of ovary: a rare case report. *J Clin Diagn Res*. 2015;9(8):ED12–13.
7. Kaur N, Singh P, Kaur M, Kaur G. Bilateral benign Brenner tumor of the ovary: a case report with review of literature. *J Midlife Health*. 2018;9(4):216–218.
8. Choudhary S, Aggarwal P, Dahiya P, Bhardwaj M, Singh T. Brenner tumor of ovary presenting as postmenopausal bleeding: a rare entity. *Int J Reprod Contracept Obstet Gynecol*. 2016;5(12):4469–4471.
9. Garg R, Sharma A, Gupta A, Kumar R. Imaging findings in benign Brenner tumor of the ovary: a diagnostic challenge. *Clin Imaging*. 2020;65:114–118.
10. Alka A, Ahmed Z, Hasan S. Brenner tumor of the ovary: clinicopathologic features of 12 cases. *J Obstet Gynaecol India*. 2010;60(5):430–3.
11. Mhawech-Fauceglia P, Wang D, Syriac S, Liu S, Chen Y. Clinical and pathological features of malignant Brenner tumors of the ovary. *Pathol Oncol Res*. 2013;19(3):479–485.
12. Garg K, Soslow RA. Histopathology of rare ovarian tumors: Brenner, clear cell, and seromucinous tumors. *Mod Pathol*. 2016;29(S1):S114–S128.



This work is licensed under Creative Commons Attribution 4.0 License

To Submit Your Article Click Here: [Submit Manuscript](#)

DOI:10.31579/2692-9392/243

Ready to submit your research? Choose Auctores and benefit from:

- ❖ fast, convenient online submission
- ❖ rigorous peer review by experienced research in your field
- ❖ rapid publication on acceptance
- ❖ authors retain copyrights
- ❖ unique DOI for all articles
- ❖ immediate, unrestricted online access

At Auctores, research is always in progress.

Learn more www.auctoresonline.org/journals/archives-of-medical-case-reports-and-case-study