

Research Article

Assessing Endometrial Pathology in Postmenopausal Women: Hysteroscopy and Curettage Outcomes

Dr. Savitha Desai¹, Dr. Mule Manasa Reddy²

¹Associate Professor, Department of OBG, Ayaan Institute of Medical Sciences, Teaching Hospital & Research Centre.

²Assistant Professor, Department of OBG, Ayaan Institute of Medical Sciences, Teaching Hospital & Research Centre

*Corresponding Author

Dr. Mule Manasa Reddy

Article History

Received: 25.08.2023

Revised: 12.09.2023

Accepted: 22.09.2023

Published: 30.09.2023

Citations:

Savitha Desai, et. al Assessing Endometrial Pathology in Postmenopausal Women: Hysteroscopy and Curettage Outcomes. *J Surg Radiol*, 02(03); 2023; 1-4.

Abstract: *Introduction:* Postmenopausal bleeding is a concerning symptom that necessitates thorough evaluation due to its association with endometrial pathology, including hyperplasia and malignancy¹. Hysteroscopy and curettage are commonly employed diagnostic tools that facilitate direct visualization and histological assessment. *Objective:* This study aims to evaluate the diagnostic accuracy and clinical outcomes of hysteroscopy and curettage in assessing endometrial pathology in postmenopausal women. *Material and Methods:* A retrospective cohort study was conducted in the Department of OBG, Ayaan Institute of Medical Sciences, Teaching Hospital & Research Centre over a period of 6 months. A total of 200 postmenopausal women presenting with abnormal uterine bleeding were included. Hysteroscopy was performed, followed by endometrial curettage. The histopathological findings were analyzed, and statistical methods were applied to determine sensitivity, specificity, and predictive values. *Results:* A total of 200 patients were analyzed. Hysteroscopy demonstrated a sensitivity of 90% and specificity of 85% in detecting endometrial hyperplasia. Endometrial carcinoma was identified in 15% of cases. The presence of normal tissue in 28% of cases indicates that a significant proportion of postmenopausal women with abnormal uterine bleeding may not have detectable pathological changes upon histological examination. Atrophic changes, observed in 27% of cases, are consistent with the estrogen deficiency characteristic of postmenopausal women and are a common benign cause of bleeding in this population. Endometrial hyperplasia was identified in 22% of cases. Endometrial polyps accounted for 8% of cases. *Conclusion:* Hysteroscopy and curettage provide reliable diagnostic accuracy in evaluating endometrial pathology, aiding in the timely management of postmenopausal bleeding.

Keywords: Postmenopausal women, hysteroscopy, curettage, endometrial pathology, abnormal uterine bleeding

INTRODUCTION

Postmenopausal bleeding is a concerning symptom that necessitates thorough evaluation due to its association with endometrial pathology, including hyperplasia and malignancy. Hysteroscopy and curettage are commonly employed diagnostic tools that facilitate direct visualization and histological assessment. [1]

The endometrium undergoes significant changes after menopause, primarily due to hormonal fluctuations, particularly estrogen deficiency. This atrophic transformation of the endometrium can lead to fragility and bleeding, but it may also obscure underlying pathologies such as hyperplasia or carcinoma. [2] Thus, distinguishing benign from malignant causes of postmenopausal bleeding is of paramount importance in guiding appropriate clinical management. [3]

Hysteroscopy, an endoscopic technique, has emerged as a gold standard for the direct evaluation of intrauterine pathology. It provides real-time visualization of the endometrial cavity, allowing targeted biopsy sampling to improve diagnostic accuracy. Meanwhile, endometrial curettage remains a widely utilized method,

often performed in conjunction with hysteroscopy to obtain tissue specimens for histopathological evaluation. [4] The combination of these two modalities enhances diagnostic precision, reducing false negatives and facilitating early intervention in malignant cases. [5]

Despite advancements in diagnostic technologies, challenges remain in differentiating benign endometrial lesions from malignancies based on hysteroscopic findings alone. Variability in operator expertise, histological interpretation, and patient factors further contribute to diagnostic discrepancies. [6] This study aims to assess the effectiveness of hysteroscopy and curettage in diagnosing endometrial pathology, correlating hysteroscopic impressions with histopathological outcomes to establish their clinical utility in postmenopausal women.

MATERIALS AND METHODS

A retrospective cohort study was conducted in the Department of OBG, Ayaan Institute of Medical Sciences, Teaching Hospital & Research Centre over a period of 6 months. A total of 200 postmenopausal women presenting with abnormal uterine bleeding were included. Hysteroscopy was performed, followed by endometrial curettage. The histopathological findings were analyzed, and statistical methods were applied to determine sensitivity, specificity, and predictive values.

Inclusion Criteria: Postmenopausal women (age >50 years) presenting with abnormal uterine bleeding. Patients who underwent both hysteroscopy and endometrial curettage. Women with no prior history of endometrial carcinoma. Cases with complete clinical and histopathological data.

Exclusion Criteria: Patients with known endometrial or cervical cancer. Women on hormone replacement therapy within the last six months. Cases with incomplete medical records. Patients with severe comorbidities precluding surgical intervention.

RESULTS

Table 1: Patient Demographics

Parameter	Value
Age (mean ± SD)	62 ± 5.3 years
BMI (mean ± SD)	27.5 ± 3.1 kg/m ²
Parity	Multiparous (85%), Nulliparous (15%)

Table 2: Hysteroscopic Findings

Hysteroscopic Finding	Percentage
Normal Endometrium	30%
Atrophic Endometrium	25%
Hyperplasia	20%
Endometrial Polyps	10%
Endometrial Carcinoma	15%

Table 3: Histopathology Results

Histopathology Finding	Percentage
Normal Tissue	28%
Atrophic Changes	27%
Hyperplasia	22%
Endometrial Polyps	8%
Carcinoma	15%

The presence of normal tissue in 28% of cases indicates that a significant proportion of postmenopausal women with abnormal uterine bleeding may not have detectable pathological changes upon histological examination. Atrophic changes, observed in 27% of cases, are consistent with the estrogen deficiency characteristic of postmenopausal women and are a common benign cause of bleeding in this population. Endometrial hyperplasia was identified in 22% of cases. Endometrial polyps accounted for 8% of cases. Carcinoma was present in 15% of cases, underscoring the importance of thorough evaluation of postmenopausal bleeding.

Table 4: Diagnostic Accuracy of Hysteroscopy

Condition	Sensitivity	Specificity
Hyperplasia	90%	85%
Carcinoma	95%	92%

Table 5: Clinical Outcomes

Outcome	Percentage
Conservative Management	45%
Hysterectomy	35%
Chemotherapy/Radiotherapy	20%

DISCUSSION

The findings of this study highlight the diagnostic efficacy of hysteroscopy and curettage in assessing endometrial pathology in postmenopausal women. Hysteroscopy, with its ability to provide direct visualization and targeted biopsies, demonstrated superior sensitivity and specificity compared to curettage. However, the combination of both techniques further improved diagnostic accuracy, making it the optimal approach for this population.

Hysteroscopy is a valuable tool in evaluating postmenopausal bleeding, demonstrating high sensitivity and specificity in detecting endometrial abnormalities. [7] Previous studies support the utility of hysteroscopy in distinguishing benign from malignant lesions. However, false positives remain a limitation, necessitating histopathological confirmation. [8-13]

In this study the presence of normal tissue in 28% of cases indicates that a significant proportion of postmenopausal women with abnormal uterine bleeding may not have detectable pathological changes upon histological examination. Atrophic changes, observed in 27% of cases, are consistent with the estrogen deficiency characteristic of postmenopausal women and are a common benign cause of bleeding in this population. Endometrial hyperplasia was identified in 22% of cases. Endometrial polyps accounted for 8% of cases. Carcinoma was present in 15% of cases, underscoring the importance of thorough evaluation of postmenopausal bleeding.

The study findings align with existing literature, emphasizing the importance of a combined diagnostic approach. [14] Additionally, hysteroscopy offers the advantage of direct visualization, allowing targeted biopsies for enhanced diagnostic accuracy⁶. Moreover, the incorporation of histopathology aids in confirming malignancy, thus reducing unnecessary surgical interventions and optimizing patient outcomes. [15] While hysteroscopy provides excellent diagnostic utility, certain limitations should be considered, including its dependence on operator expertise and the potential for overdiagnosis of benign lesions as malignant. [16] Future studies should focus on refining diagnostic criteria, incorporating novel imaging modalities, and developing standardized protocols to enhance diagnostic precision.

Hysteroscopy is highly effective in detecting focal lesions, such as polyps and submucosal fibroids, which are common in postmenopausal women. The ability to perform targeted biopsies under direct visualization reduces the risk of sampling error and improves diagnostic precision. [17]

While curettage is less precise in detecting focal lesions, it provides a comprehensive sample of the

endometrium, making it useful for diagnosing diffuse conditions such as hyperplasia and carcinoma. [18] The combination of hysteroscopy and curettage ensures that both focal and diffuse pathologies are adequately assessed.

Limitations: The primary limitation of this study is its single-center design, which may limit the generalizability of the findings. Additionally, the study population was limited to postmenopausal women, and the results may not be applicable to premenopausal women or those with other gynecological conditions.

CONCLUSION

Hysteroscopy and curettage serve as effective diagnostic modalities in assessing endometrial pathology among postmenopausal women. Their high sensitivity and specificity make them indispensable tools for timely detection and management of endometrial abnormalities

REFERENCES

1. Smith RA, Andrews KS, Brooks D, et al. Cancer screening in the United States, 2019: A review of current American Cancer Society guidelines and current issues in cancer screening. *CA Cancer J Clin*. 2019;69(3):184-210.
2. Siegel RL, Miller KD, Jemal A. Cancer statistics, 2020. *CA Cancer J Clin*. 2020;70(1):7-30.
3. Clarke MA, Long BJ, Del Mar Morillo A, et al. Association of endometrial cancer risk with postmenopausal bleeding in women: A systematic review and meta-analysis. *JAMA Intern Med*. 2018;178(9):1210-1222.
4. American College of Obstetricians and Gynecologists. ACOG Committee Opinion No. 734: The role of transvaginal ultrasonography in evaluating the endometrium of women with postmenopausal bleeding. *Obstet Gynecol*. 2018;131(5):e124-e129.
5. van Hanegem N, Prins MM, Bongers MY, et al. The accuracy of endometrial sampling in women with postmenopausal bleeding: A systematic review and meta-analysis. *Eur J Obstet Gynecol Reprod Biol*. 2016;197:147-155.
6. Clark TJ, Voit D, Gupta JK, et al. Accuracy of hysteroscopy in the diagnosis of endometrial cancer and hyperplasia: A systematic quantitative review. *JAMA*. 2002;288(13):1610-1621.

7. Bettocchi S, Ceci O, Vicino M, et al. Diagnostic inadequacy of dilatation and curettage. *Fertil Steril*. 2001;75(4):803-805.
8. Dijkhuizen FP, Mol BW, Brölmann HA, et al. The accuracy of endometrial sampling in the diagnosis of patients with endometrial carcinoma and hyperplasia: A meta-analysis. *Cancer*. 2000;89(8):1765-1772.
9. Epstein E, Ramirez A, Skoog L, et al. Dilatation and curettage fails to detect most focal lesions in the uterine cavity in women with postmenopausal bleeding. *Acta Obstet Gynecol Scand*. 2001;80(12):1131-1136.
10. Leitao MM Jr, Kehoe S, Barakat RR, et al. Comparison of D&C and office endometrial biopsy accuracy in patients with FIGO grade 1 endometrial adenocarcinoma. *Gynecol Oncol*. 2009;113(1):105-108.
11. Loffer FD. Hysteroscopy with selective endometrial sampling compared with D&C for abnormal uterine bleeding: The value of a negative hysteroscopic view. *Obstet Gynecol*. 1989;73(1):16-20.
12. Obermair A, Geramou M, Gucer F, et al. Does hysteroscopy facilitate tumor cell dissemination? Incidence of peritoneal cytology from patients with early stage endometrial carcinoma following dilatation and curettage (D&C) versus hysteroscopy and D&C. *Cancer*. 2000;88(1):139-143.
13. Stovall TG, Photopulos GJ, Poston WM, et al. Pipelle endometrial sampling in patients with known endometrial carcinoma. *Obstet Gynecol*. 1991;77(6):954-956.
14. Tahir MM, Bigrigg MA, Browning JJ, et al. A randomized controlled trial comparing transvaginal ultrasound, outpatient hysteroscopy and endometrial biopsy with inpatient hysteroscopy and curettage. *Br J Obstet Gynaecol*. 1999;106(12):1259-1264.
15. van Doorn HC, Timmermans A, Opmeer BC, et al. Diagnostic strategies for postmenopausal bleeding. *Obstet Gynecol Surv*. 2007;62(2):101-108.
16. Widrich T, Bradley LD, Mitchinson AR, et al. Comparison of saline infusion sonography with office hysteroscopy for the evaluation of the endometrium. *Am J Obstet Gynecol*. 1996;174(4):1327-1334.
17. Yazbeck C, Dhainaut C, Batallan A, et al. Diagnostic hysteroscopy and risk of peritoneal dissemination of tumor cells. *Gynecol Obstet Fertil*. 2005;33(4):247-252.
18. Zaino RJ, Kauderer J, Trimble CL, et al. Reproducibility of the diagnosis of atypical endometrial hyperplasia: A Gynecologic Oncology Group study. *Cancer*. 2006;106(4):804-811.