

Original Article

Endometrial Hyperplasia Over 45 Years Old Female Present with Complain of Abnormal Vaginal Bleeding

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Abstract

Objective: To determine the frequency of endometrial hyperplasia over 45 years old females presented with complain of abnormal vaginal bleeding.

Methodology: This cross sectional study was carried out at the Obstetrics and Gynaecology department of Peoples Medical University & Hospital Nawabshah, from June 2015 to May 2016. A total of 91 women with abnormal vaginal bleeding were included. All patients underwent detailed history followed by special investigation transvaginal ultrasound (TVS). Endometrium hyperplasia was labeled as positive on endometrial thickness greater than 5mm. Proforma for collecting details was filled accordingly.

Results: The mean age of a total of 91 patients were 50.97±4.35 years. Endometrial hyperplasia was found to be 17.58% (16/91) among women over 45 years old who present with a complaint of abnormal vaginal bleeding. Endometrial hyperplasia was statistically insignificant according to age and parity; p-values were quite insignificant.

Conclusion: As per study observation endometrial hyperplasia was found to be 17.58% among women complaining of abnormal vaginal bleeding. By early detection, diagnosis and management adverse outcome can be decreased.

Keywords: Endometrial hyperplasia, abnormal vaginal bleeding, transvaginal ultrasound

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Introduction

AUB (abnormal uterine bleeding) is a prevalent disorder that results in higher healthcare expenditure and a lower standard of living.^{1,2} The importance of studying endometrial hyperplasia stems from the greater risk of malignancy as well as the issues that come with menstrual disorders, AUB, and anaemia in females. Endometrial hyperplasia plays an important part in the development of gynaecological morbidity among females of childbearing age, and it is among the most common reasons for gynaecological hospitalization (10-18 %).^{3,4}

Hyperplasia is the enlargement of a tissue or organ caused by a rise in the number of specialized cells. Endometrium may undergo pronounced hyperplasia in reaction to unopposed and prolonged oestrogen

stimulation, which is classified as endometrial hyperplasia. A noncancerous proliferation of endometrial glands, which is abnormal and dilated however not showing cellular atypia or consecutive crowding, is known as cystic or simple hyperplasia. A endometrial glands' proliferation with an unusual shape, complex architecture, and consecutive crowding however no atypia is known as adenomatous complex hyperplasia.^{5,6} In reaction to progesterone and oestrogen, the endometrium of childbearing-age females follows cyclic developmental variations. In the initial proliferative process, the stromal and epithelial cells of a typical endometrial uterine have the maximum PR and ER scores; however, with the progression in the secretory phase, the PR & ER scores decrease. The PR & ER scores are still high in

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normal endometriotic lesions, however, they are unaffected by menstruation. The ER mRNA's expression trend is often recorded in tandem with the ERs' expression pattern. ERs & PRs are present in both the cells of glandular epithelium and their underlying stromal cells in normal endometriosis. ER mRNA transcription was observed with columnar epithelium in pelvic peritoneum and endometriotic peritonea, however not in mesothelium (typical pelvic peritoneum). The mesothelium was negative for oestrogen receptors as well as PRs, however in connective tissue, nuclei of fibroblasts were positive.^{7,8} AUB is the most common symptom of perimenopausal age. Endometrial hyperplasia has three pathological types, such as 1) Simple endometrial hyperplasia characterized by cystic glandular dilatation; 2) adenomatous hyperplasia characterized by glands with a very irregular shape and noticeable complex structure; and 3) atypical hyperplasia characterized by glands with abnormal mitotic numbers and nuclear atypia. When interacting with such patients, take into account the associated ovarian cancer, endometrial cancer, and hyperplasia progressing to cancer.^{5,9} In around half of the cases, endometrial hyperplasia can possibly lead to endometrial cancer.¹⁰ When a structural aetiology is suspected and when symptoms continue after adequate initial care, TVS seems to be the favored imaging modality.¹¹ This study has been conducted to determine the frequency of endometrial hyperplasia over 45 years old female presented with complain of abnormal vaginal bleeding at tertiary care Hospital.

Methodology

This Cross Sectional study was conducted at Obstetrics and Gynaecology department of Peoples Medical University & Hospital Nawabshah from June 2015 to May 2016. All patients ≥ 45 years to 60 years of age with any parity presenting with abnormal vaginal bleeding were included in the study. Patients having uterine fibroid and co-morbidities like hypertension and diabetes mellitus were excluded. Non-Probability consecutive technique was used. The study was performed after the permission of the ethical committee and written informed consent for the study was obtained from the patients. A detailed medical history and clinical examination was done. All the study subjects underwent special investigation transvaginal ultrasound (TVS). The procedure was done by a consultant with having minimum experience of ≥ 5 years. Transvaginal ultrasound was performed by using

vaginal transducer of 6.5 MHz frequency. Endometrium hyperplasia was labeled as positive on endometrial thickness greater than 5mm. Proforma for collecting details was filled accordingly. Data was analyzed by SPSS version 20.

Results

A total of 91 women with abnormal vaginal bleeding were studied, their mean age was 50.97 ± 4.35 years, and mean endometrial thickness was 4.65 ± 2.10 mm. (Table I)

Out of all 62(68.13%) women were multiparous and 20(21.98%) were grand multiparous, while only 9(9.89%) were primiparous. (Table II)

Table I: Descriptive statistics of age and endometrial thickness(n=91)

Statistics	Variables	
	Age (Years)	Endometrial Thickness (mm)
Mean	50.97	4.65
Std. Deviation	4.35	2.10
95% Confidence Interval for Mean	Lower Bound	4.21
	Upper Bound	5.09
Median	51	4.
Interquartile Range	7	1.2

Frequency of endometrial hyperplasia was observed in 17.58% (16/91) women as shown in figure 1.

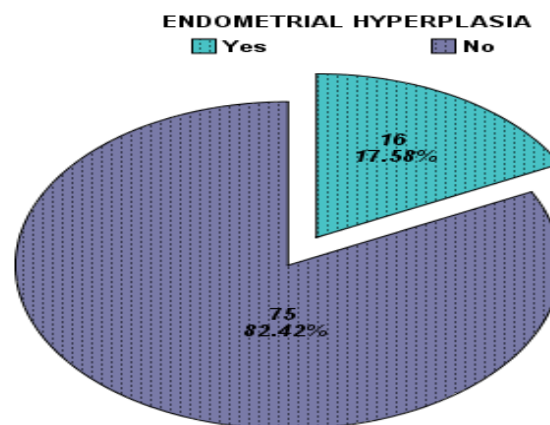


Figure 1. Frequency of endometrial hyperplasia. (n=91)

The frequency of endometrial hyperplasia was not significant according to age and parity ($p > 0.05$) as shown in table II.

Table II: Endometrial hyperplasia with respect to the age and parity (n=91)

Variables		Endometrial Hyperplasia		P-value
		Yes	NO	
Age groups	≤ 50 Years	5(11.4%)	39(88.6%)	0.203
	51 to 55 Years	8(27.6%)	21(72.4%)	
	56 to 60 Years	3(16.7%)	15(83.3%)	
Parity	Primipara	1(11.1%)	8(88.9%)	0.784
	Multipara	12(19.4%)	50(80.6%)	
	Grand Mulipara	3(15%)	17(85%)	

Discussion

Abnormal vaginal bleeding is an important health problem and associated with multifactorial etiology. Transvaginal ultrasonography as a first-line imaging modality can be used to diagnose structural causes of abnormal bleeding.¹² When performing hysterectomy for intraepithelial endometrial neoplasia, age and thickness of endometrial stripe are the best predictors of subsequent endometrial cancer.¹³ However in this study mean age of the study subjects were 50.97±4.35 years, these findings were correlated with the study of Babacan A et al¹⁴ as they reported 49.5±12.9 years of mean age in their patients. In patients of this age, a rise in cases may be attributable to the factor that as menopause occurs, the amount of ovarian follicles decreases, and their gonadotrophic stimulus resistance increases, resulting in a low concentration of estrogen that is insufficient to maintain the typical endometrium development.

In our study frequency of endometrial hyperplasia was observed in 17.58% of the women. On the other hand, Muzaffar et al reported 24.7% endometrial hyperplasia¹⁵ and Wahda et al reported 30.3%.¹⁶ Abid M et al¹⁷ reported that the endometrial hyperplasia was 1% out of 119 reproductive age group women, 6.5% endometrial hyperplasia was among 77 perimenopausal women and 13.2% was among postmenopausal women. Munawar S et al¹⁸ conducted the study to evaluate the causes of bleeding in postmenopausal women and they observed endometrial hyperplasia as the commonest diagnosis (48%). In another study by Javid A, et al¹⁹ reported that hyperplasia was the leading histopathological finding among patients with abnormal uterine bleeding seen in 83(72.17%) cases. Our study findings regarding the frequency of endometrial hyperplasia are

different from some other studies and this may because of female age, selection criteria, sample size, and environmental variations. Identification and early management of endometrial hyperplasia remain vital as they are the precursors for endometrial cancer.

Conclusion

Endometrial hyperplasia typically presents with abnormal uterine bleeding and is most common with increasing age in premenopausal women. In our study frequency of endometrial hyperplasia over 45 years old female present with complain of abnormal vaginal bleeding was found to be 17.5%. Irrespective of the abnormal bleeding type, a patient-centered strategy to medical treatment selection is critical. The effectiveness of any treatment provided would be affected not just by its efficacy, however also by the interests of a female and her tolerance for adverse effects. Every treatment intervention should be decided after a review of the patient's preferences, desire for contraception/fertility, underlying diseases or contraindications, the existence of dysmenorrhea, and the extent of bleeding.

References

1. Marnach ML, Laughlin-Tommaso SK. Evaluation and management of abnormal uterine bleeding. *Maya Clinic Proceedings* 2019;1;94;2:326-35.
2. Chodankar R, Critchley HO. Biomarkers in abnormal uterine bleeding. *Biology of reproduction*. 2019 Dec 24;101(6):1155-66.
3. Giannella L, Mfuta K, Setti T, Cerami LB, Bergamini E, Boselli F. A Risk-Scoring Model for the Prediction of Endometrial Cancer among Symptomatic Postmenopausal Women with Endometrial Thickness > 4mm. *Bio Med Res Int*. 2014;1-7.
4. Benyuk VA, Kurochka VV, Vynyarskyi YM, Goncharenko VM. Diagnostic algorithm endometrial pathology using hysteroscopy in reproductive-age women. *Women Health (ZdorovyaZhinky)* 2009;6(42):54–6.
5. Takreem A, Danish N, Razaq S. Incidence of endometrial hyperplasia in 100 cases presenting with polymenorrhagia/menorrhagia in perimenopausal women. *J Ayub Med Coll Abbottabad*. 2009;21(2):60-3.
6. Nicolaije KA, Ezendam NP, Vos MC, Boll D, Pijnenborg JM, Kruitwagen RF, et al. Follow-up practice in endometrial cancer and the association with patient and hospital characteristics: a study from the population-based PROFILES registry. *GynecolOncol*. 2013;129(2):324–31.
7. Chodankar R, Critchley HO. Biomarkers in abnormal uterine bleeding. *Biology of reproduction*. 2019 Dec 24;101(6):1155-66.
8. Giannella L, Mfuta K, Setti T, Cerami LB, Bergamini E, Boselli F. A Risk-Scoring Model for the Prediction of Endometrial

- Cancer among Symptomatic Postmenopausal Women with Endometrial Thickness > 4mm. *Bio Med Rese Int*. 2014;1-7.
9. Benyuk VA, Kurochka VV, Vynyarskyi YM, Goncharenko VM. Diagnostic algorithm endometrial pathology using hysteroscopy in reproductive age women. *Women Health (ZdorovyaZhinky)* 2009;6(42):54–6.
 10. Takreem A, Danish N, Razaq S. Incidence of endometrial hyperplasia in 100 cases presenting with polymenorrhagia/menorrhagia in perimenopausal women. *J Ayub Med Coll Abbottabad*. 2009;21(2):60-3.
 11. Nicolaije KA, Ezendam NP, Vos MC, Boll D, Pijnenborg JM, Kruitwagen RF, et al. Follow-up practice in endometrial cancer and the association with patient and hospital characteristics: a study from the population-based profiles registry. *GynecolOncol*. 2013;129(2):324–31
 12. Wheeler KC, Goldstein SR. Transvaginal ultrasound for the diagnosis of abnormal uterine bleeding. *Clinical obstetrics and gynecology*. 2017;1;60(1):11-7.
 13. Vetter MH, Smith B, Benedict J, Hade EM, Bixel K, Copeland LJ, Cohn DE, Fowler JM, O'Malley D, Salani R, Backes FJ. Preoperative predictors of endometrial cancer at time of hysterectomy for endometrial intraepithelial neoplasia or complex atypical hyperplasia. *American journal of obstetrics and gynecology*. 2020 Jan 1;222(1):60-e1.
 14. Babacan A, Gun I, Kizilaslan C, Ozden O, Muhcu M, Mungen E, Atay V. Comparison of transvaginal ultrasonography and hysteroscopy in the diagnosis of uterine pathologies. *International journal of clinical and experimental medicine*. 2014;7(3):764.
 15. Muzaffar M, Akhtar KA, Yasmin S, Rehman M, Iqbal W, Khan MA. Menstrual irregularities with excessive blood loss: a clinico-pathological correlation. *JPMA*. 2005;55(11):486.
 16. Wahda MT, Manal TA, Safwan I. Histopathological interpretation of abnormal uterine bleeding after the age of 40 year. *Iraqi Postgrad Med J*. 2010;9:274-82.
 17. Abid M, Hashmi AA, Malik B, Haroon S, Faridi N, Edhi MM, Khan M. Clinical pattern and spectrum of endometrial pathologies in patients with abnormal uterine bleeding in Pakistan: need to adopt a more conservative approach to treatment. *BMC Women's Health*. 2014;14(1):1-7.
 18. Munawar S, Kamal F, Munawar F. Morphological pattern of endometrial lesions in postmenopausal bleeding. *Biomedica*. 2018 ;34(1):11.
 19. Javid A, Ambareen A, Khatri Y, Afridi F. Frequency of various histopathological patterns of endometrial curetting in women with abnormal uterine bleeding. *JKCD*. 2020;1;1-5