

Original Research Article

Evaluation of clinical profile of post menopausal women presenting with postmenopausal bleeding in tertiary care hospital

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Abstract

Objectives: 1.To evaluate the clinical profile of postmenopausal women presenting with postmenopausal bleeding 2.To evaluate the causes of postmenopausal bleeding. **Methods:** It is a retrospective observational clinical study of 48 postmenopausal women presenting with complaints of postmenopausal bleeding who attended out-patient department of Obstetrics and Gynaecology in Sri Padmavati medical college and hospital for women, Tirupathi from the period between January 2019 - December 2019. Detailed clinical history including obstetric history, past medical and surgical history, age at menopause; onset of symptoms since menopause noted; general physical examination, systemic examination, detailed gynaecological examination including per speculum, bimanual examination performed. Pap smear, cervical biopsy and endometrial sampling and transvaginal ultrasonography was performed in all cases. **Results:** 29.16% of the women presenting with postmenopausal bleeding were in age group 61-65 years. 31.25% (15 cases) came with complaints of postmenopausal bleeding within 1-5 years of menopause. Pap smear was abnormal in 14 cases (29.16%). Histopathology of cervical biopsy showed 16.66% (8 cases) had carcinoma cervix. Histopathology of endometrial biopsy showed atrophic endometrium in 39.58% cases, 16.66% (8 cases) had endometrial carcinoma. **Conclusion:** Postmenopausal bleeding is a common clinical problem in postmenopausal women. It requires immediate evaluation. Community level awareness has to be made to decrease the time between symptom presentation and evaluation and treatment.

Keywords: Postmenopausal bleeding, Endometrial carcinoma, Pap smear, Ultrasound, Carcinoma cervix.

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Introduction

Postmenopausal bleeding (PMB) is bleeding through genital tract occurring after 1 year of amenorrhoea. Menopause is a retrospective term. Women with postmenopausal bleeding should be thoroughly evaluated. The age of menopause is variable, but for most women it is 51 years. 10% of women present with PMB.¹ PMB is often caused by abnormalities of the endometrium, may be benign or malignant. Approximately 10% of patients with PMB will have gynaecological malignancy. PMB is associated with 10-15% risk of endometrial carcinoma and warrants appropriate evaluation.² The prevalence of endometrial hyperplasia and polyps is about 40%.³ PMB is most commonly intrauterine origin but may arise from fallopian tubes, ovary, vagina, vulva.

Most common causes of postmenopausal bleeding: Atrophic vaginitis:60-80%, Estrogen treatment:15-25%, Polyp(cervical or uterine):2-12%, Endometrial Hyperplasia : 5-10%, Endometrial Carcinoma :10%.

Materials and methods

It is a retrospective observational clinical study of 48 postmenopausal women presenting with complaints of postmenopausal bleeding who attended out-patient department of Obstetrics and Gynaecology in Sri Padmavati medical college and

hospital for women, Tirupathi from the period between January 2019 - December 2019.

Inclusion criteria included all patients with complaints of postmenopausal bleeding, exclusion criteria were patients on HRT-hormone replacement therapy and history of hysterectomy/subtotal hysterectomy.

After taking informed consent, detailed clinical history including obstetric history, past medical and surgical history, age at menopause; onset of symptoms since menopause noted; general physical examination, systemic examination, detailed gynaecological examination including per speculum, bimanual examination performed. Per speculum examination done to know status of cervix, vagina. Bimanual examination done to know size, position of uterus and to know other pelvic pathology.

Pap smear, cervical biopsy, endometrial sampling and transvaginal ultrasonography (TVS) was performed in all cases. TVS done to know endometrial thickness, size of uterus and to know associated adnexal pathology.

The Statistical analysis was done with SPSS software for windows, Version 20.0.

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Results

There were 48 women who presented with postmenopausal bleeding during the study period of one year (January 2019 –December 2019).

Table 1: Distribution of Cases By Age

AGE(YEARS)	NUMBER(n=48)	PERCENTAGE(%)
40-45	02	04.16
46-50	04	08.33

51-55	11	22.91
56-60	05	10.41
61-65	14	29.16
65-70	05	10.41
71-75	03	06.25
76-80	03	06.25
81-85	01	02.08

Among 48 cases studied, the mean age of patient presenting with postmenopausal bleeding was 57.5 years. Majority of women were in the age group between 61-65 years- 29.16% (14 women). Mean menopausal age was 48.3 years in the study group.

12.5% cases (6 cases) were diabetic and 31.25% (15 cases) cases were hypertensive and 10.41% (5 cases) cases were both diabetic and hypertensive .

Underweight was noted in 12 cases (25%), normal BMI was seen in 23 cases (47.91%), overweight noted in 10 cases (20.83%), morbidly obese in 3 cases(6.25%).

64.58% of the women in the study belonged to low socioeconomic status (31 cases). Family history of endometrial malignancy was found among 1 case.

Table 2: Clinical Information Of Cases

Appearance of postmenopausal bleeding	NUMBER (N=48)	PERCENTAGE (%)
1-5	18	37.50
6-10	08	16.66
11-15	09	18.75
>15	13	27.08
Interval between onset of complaint and hospital visit(months)	NUMBER (N=48)	PERCENTAGE (%)
<1	27	56.25
1-3	11	22.91
4-6	05	10.41
>6	05	10.41

37.50% (18 cases) came with complaints of postmenopausal bleeding within 1-5 years of menopause. Earliest presentation was within 2 years of menopause. One case presented with bleeding after 27 years of menopause.

56.25% (27 cases) presented within a month of appearance of postmenopausal bleeding, presented within a week (~23 cases) of appearance of symptoms.

Table 3: Distribution of Cases Based On Cervical Examination and Endometrial Thickness On Transvaginal Ultrasound

CERVIX	NUMBER (n=48)	PERCENTAGE(%)
HEALTHY	32	66.66
UNHEALTHY	16	33.33
ENDOMETRIAL THICKNESS	NUMBER (n=48)	PERCENTAGE(%)
<5	10	20.83
5-10	22	45.83
11-15	07	14.58
>15	09	18.75

On per speculum examination, 16 cases had unhealthy cervix. 8 cases had ulcero-proliferative growth. In 3 cases polyp was seen protruding through cervical os and cervix was beeding on touch in 5 cases. (without obvious lesion)

Endometrial collection was found in 4 cases (8.33%), 22cases (45.83%) had endometrial thickness between 5-10 mm . No ovarian pathology was found in TVS in our study.

Table 4: Pap Smear and Cervical Biopsy Report

PAP SMEAR	NUMBER(n=48)	PERCENTAGE (%)
NORMAL	34	70.83
ABNORMAL	14	29.16
CERVICAL BIOPSY	NUMBER(n=48)	PERCENTAGE(%)
NORMAL	31	64.58
ABNORMAL	17	33.33

PAP smear was taken for all the study women. 34 smears (70.83%) were normal and 14 smears showed abnormal smears. Out of 14 abnormal smears, 8 smears(16.66%) showed carcinoma cervix. 2 smears(4.16%) showed ASCUS and 2 smears (4.16%)showed LSIL and 2 cases (4.16%) HSIL.

Cervical biopsy was taken in all the cases. 31 cases(64.58%) had normal cervical biopsy histopathology report and 8 cases(16.66%) had squamous cell carcinoma of cervix , 4 cases(8.33%) had chronic cervicitis, 2 cases(4.16%) had CIN 1 and 1 case(2.08%) was CIN 2 and 2 cases (4.16%)were CIN3.

Table 5: Endometrial Biopsy Histopathology Report

HISTOPATHOLOGY REPORT	NUMBER (n=48)	PERCENTAGE (%)
POLYP	03	06.25
ATROPHIC ENDOMETRIUM	19	39.58
ENDOMETRIAL HYPERPLASIA WITHOUT ATYPIA	06	12.50
ENDOMETRIAL HYPERPLASIA WITH ATYPIA	04	08.33
ENDOMETRIAL CARCINOMA	08	16.66
INCONCLUSIVE	08	16.66

Endometrial biopsy was performed in all patients by pipelle/ gentle curettage. 19 cases (39% cases) had atrophic endometrium. 8 cases (16.66%) had endometrial carcinoma, 8 cases (16.66%) had inconclusive report.

Discussion

Evaluation of a women presenting with postmenopausal bleeding is done by detailed history and thorough clinical examination and relevant investigations. In clinical practice, series of tests are combined along with patient's history and examination to arrive at a diagnosis. The probability of cancer in women with PMB is 10% but may be as high as 25% in over 80 years, and around 20% in women with diabetes or in obese women. Patients with increased endometrial thickness should undergo invasive testing. Dilatation and curettage is considered now to be an out dated practice and is being replaced by less invasive outpatient evaluation like pipelle and hysteroscopy-guided biopsies⁴. We have sampled our cases using pipelle/ dilatation and curettage on outpatient basis.

Khan et al⁵ built a four step wise multivariable approach. The first model provided an estimate of the combined predictive value of the clinical history variables. The three other models determine the combined predictive added value of history and tests (hysteroscopy or ultrasound, or ultrasonography and hysteroscopy combined)⁶. TVS along with patient's characteristics has been studied in a diagnostic strategy and higher diagnostic accuracy was achieved⁷. The present study showed that postmenopausal bleeding (PMB) was common in the 4th to 8th decades of life. Similar finding was seen in a studies done by Aleazar JL et al., Dungal G et al., Sonia et al.^{8,9,10} There is a decrease incidence of postmenopausal bleeding seen with increasing age which is similar to our study^{11,12}. Diabetes, hypertension and obesity are risk factors for endometrial carcinoma¹⁰ and these women present with postmenopausal bleeding. In this study, 54% of patients had multiple medical disorders like diabetes and hypertension, which is similar to study by Shahnaz et al¹³. 56.25 % patients presented within one month of symptom onset as compared to only 8% in the study done by Sonia et al.¹⁰ Our study population reported early following symptom onset compared to other studies.

In our study, we noted that most of them had atrophic endometrium (39.58%) which is the most common cause of PMB. Next most common cause being endometrial carcinoma (16.66%) which is similar to study by Shahnaz et al.¹¹

Women with postmenopausal bleeding and endometrial thickness of <4mm on ultrasound has 0.06% prevalence of endometrial carcinoma.¹² It is increased to 19% with endometrial thickness \geq 5mm.¹⁴ Endometrial thickness of <4mm does not require endometrial biopsy^{14,15}.

Conclusion

In this article, through evaluation of postmenopausal women has been described, as postmenopausal bleeding is common complaint in postmenopausal women due to increase in life expectancy. There are well developed, evidence-based strategies on how best to investigate women with PMB. Future research should be focussed on different diagnostic strategies to achieve higher accuracy. Community level awareness has to be improved to decrease the time between symptom presentation and treatment.

References

1. Astrup K, Olivarius NDF. Frequency of spontaneously occurring postmenopausal bleeding in the general population. *Acta Obstet Gynaecol Scand* 2004;83:203-7.

2. Parkin DM, Bray F, Ferlay J, Pisani P. Estimating the world cancer burden: globocan 2000. *Int J Cancer* 2001;94:153-6.
3. Timmermans A, Gerritse MB, Opmeer BC, Jansen FW, Mol BW, Veersema S. Diagnostic accuracy of endometrial thickness to exclude polyps in women with postmenopausal bleeding. *J Clin Ultrasound* 2008;36:286-90.
4. Bakour SH, Timmermans A, Mol BW, Khan KS. Management of women with postmenopausal bleeding: evidence-based review. *The Obstetrician & Gynaecologist* 2012;14:243-9.
5. Khan KS, Dinnes J, Kleijnen J. Systematic reviews to evaluate diagnostic tests. *Eur J Obstet Gynecol Reprod Biol* 2001;95:6-11.
6. Khan KS, Chien PFW, Dwarakanath LS. Logistic regression models in obstetrics and gynaecology literature. *Obstet Gynecol* 1999;93: 1014-20.
7. Opmeer BC, van Doorn HC, Heintz AP, Burger CW, Bossuyt PM, Mol BW. Improving the existing diagnostic strategy by accounting for characteristics of the women in the diagnostic work up for postmenopausal bleeding. *BJOG*. 2007;114(1):51-58
8. Aleazar JL, Galvan R. Three dimensional power Doppler ultrasound scanning for the prediction of endometrial cancer of women with postmenopausal bleeding and thickened endometrium. *Am J Obstet Gynecol* 2009;200(1):4401-6
9. Dungal G. A study of endometrium of patients with abnormal uterine bleeding at chitwan valley, Kathmandu Univ Med J, 2003;1(2):110-2.
10. Sonia A, Bhupinder A, Marwaha MPS, Singh A. Epidemiological correlates of post menopausal bleeding in a tertiary care hospital. *Ind J community Health*, 2012;24(2):158-160.
11. Singh P, Dwivedi P, Mendiratta S. Correlation of Endometrial Thickness with the Histopathological Pattern of Endometrium in Postmenopausal Bleeding. *J Obstet Gynaecol India*. 2016;66(1):42-46.
12. Gredmark T, Kvint S, Havel G, Mattson LA. Histopathological Findings in Women with Postmenopausal Bleeding. *Br J Obstet Gynaecol*. 1995;102:133-36.
13. Shahnaz R, Chowdhury TA, Zinnat AN, Shahana S, Nahid S, Maherun N. Clinical Study of Postmenopausal Bleeding. *Delta Med Col J*. Jul 2017;5(2):83 - 88.
14. Gull B, Carlsson S, Karlsson B, Ylostalo P, Milsom I, Granberg S. Transvaginal Ultrasonography of the Endometrium in Women with Postmenopausal Bleeding. Is It Always Necessary to Perform an Endometrial Biopsy? *Am J Obstet Gynecol*. 2000;182:509-15.
15. Gull B, Karlsson B, Milsom I, Granberg S. Can Ultrasound Replace Dilatation and Curettage? A Longitudinal Evaluation of Postmenopausal Bleeding and Transvaginal Sonographic Measurement of the Endometrium as Predictors of Endometrial Cancer. *Am J Obstet Gynecol*. 2003;188(2):401-408.

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