



EVALUATION OF POSTMENOPAUSAL BLEEDING IN A TERTIARY CARE HOSPITAL

Gynaecology

Prof (Dr) Rabindra Nath Behera Dept. Of Obstetrics &Gynaecology, Hi-Tech Medical college &Hospital , Bhubaneswar, Odisha, India

Dr Ramakanta Sahoo* Final year PG student , Dept. Of Obstetrics &Gynaecology, Hi-Tech Medical college &Hospital , Bhubaneswar, Odisha, India *Corresponding Author

ABSTRACT

Background: Postmenopausal bleeding is considered an important and alarming symptom both to the patient and to the gynecologist, and requires as complete evaluation as possible in order to ensure the absence of malignancy and to identify and treat high risk patients such as those with endometrial hyperplasia. The aim of the present study was to investigate the clinical significance and endometrial pathology in patients with postmenopausal bleeding (PMB) in terms of etiology, risks factors, incidence of malignancy, and histopathologicalevaluation.

Methods: 100 cases of PMB attending to Gynaecology Dept. of Hi-tech Medical College & Hospital, Bhubaneswar from 1st November 2016 to 31st October 2018 underwent a detailed history, clinical examination and full investigation, including full laboratory investigation, pelvic ultrasound, and examination under anesthesia (EUA) with dilatation and curettage and endometrial sampling. The age group of the patient was more than 40yrs.

Results: It showed that Benign pathology was found in (43/100) cases. These included senile atrophic endometrium, endometrial hyperplasia, endometritis, endometrial polyps, cervicitis, and cervical polyps. Malignant pathology was found in (57) cases including (46) cases of cancer of the cervix, (07) cases of adenocarcinoma of the endometrium, ovarian malignancy (4)

Conclusion : It is concluded that postmenopausal bleeding is an important symptom and requires careful and prompt evaluation to eliminate the possibility of malignancy as quickly as possible.

KEYWORDS

Post Menopausal bleeding (PMB), Endometrial hyperplasia, Ca Cervix

INTRODUCTION

Life expectancy of women has increased during this era, hence, many will experience postmenopausal period. Post menopausal bleeding is defined as bleeding from the genital tract one or more years after a woman's last period. It is a common problem, representing 5% of all gynaecology outpatient attendances¹⁻³ and it is an alarming symptom in this age group. It is not always possible to assign pathologic cause with certainty in postmenopausal bleeding (PMB). The dictum is "Postmenopausal bleeding indicates malignancy until proved otherwise".^{4,6}

Aetiology of post-menopausal bleeding include: non-gynaecological causes like trauma or a bleeding disorder, use of hormone replacement therapy, vaginal atrophy, endometrial hyperplasia (simple, complex, and atypical), endometrial carcinoma usually presents as PMB but 25% occur in premenopausal women. Other causes include endometrial polyps or cervical polyps, carcinoma of cervix, uterine sarcoma, ovarian carcinoma (especially oestrogen-secreting ovarian tumours), vaginal carcinoma which is very uncommon & carcinoma of vulva may bleed, but the lesion should be obvious.

Risk factors for endometrial cancer include: exogenous oestrogens, tamoxifen therapy, polycystic ovary syndrome, hereditary non-polyposis colorectal carcinoma, obesity combined with diabetes. However, the use of combined oral contraceptives decreases risk.⁷⁻¹⁵

Where sufficient local skills and resources exist, transvaginal ultrasound is an appropriate first-line procedure to identify which woman with post-menopausal bleeding is at higher risk of endometrial cancer.

The mean endometrial thickness in post-menopausal women is much thinner than in pre-menopausal women. Thickening of the endometrium may indicate the presence of pathology. In general, the thicker the endometrium, the higher the likelihood of important pathology i.e. endometrial cancer being present. The threshold in the UK is 4mm; a thickness of >4mm gives 7.3% likelihood of endometrial cancer³⁰. A thickness of <4mm has a negative predictive value of 98%³¹. A recent meta-analysis found that a TVUS result of 4 mm or less reduced the risk of disease by 84%²⁶. Some pathology may be missed and it is recommended that hysteroscopy and biopsy should be performed if clinical suspicion is high³². The accuracy of assessing endometrial thickness in women with diabetes and obesity has been questioned²⁸⁻³⁰, but models have been developed to take personal characteristics into account when predicting the risk of cancer³⁴.

Hysteroscopy and biopsy (curettage) is the preferred diagnostic technique to detect polyps and other benign lesions. Hysteroscopy may be performed as an outpatient procedure, although some women will require general anesthetic. A significant development has been direct referral to 'one stop' specialist clinics.²⁵⁻²⁸ At such clinics several investigations are available to complement clinical evaluation, including ultrasound, endometrial sampling techniques and hysteroscopy. Following such assessment reassurance can be given or further investigations or treatment can be discussed and arranged.

AIMS AND OBJECTIVES OF STUDY:

- 1- To ascertain aetiological factors of PMB (postmenopausal bleeding.)
- 2- To investigate the clinical significance of postmenopausal bleeding in terms of risks factors, incidence of malignancy, and histopathologicalevaluation.

MATERIAL AND METHODS:

This was a prospective study, conducted over a period of 2 years between 1st November 2016 to 31st October 2018, in Postgraduate Gynaecology dept. Of Hi-Tech Medical College &Hospital , Bhubaneswar. A total of 100 cases who presented clinically with postmenopausal bleeding were selected. All the patients gave history of genital tract bleeding varying from spotting per vagina, scanty flow, moderate to profuse bleeding or post coital bleeding.

The age of the patients was recorded. Full assessment done by history, physical examination & investigations which include complete blood picture, fasting blood sugar & pelvic ultrasound. None of the women was on hormone replacement therapy. Diagnostic curettage was done. The specimens received varied from endometrial biopsy/curettage, cervical biopsy, to hysterectomies (100 cases in total). The slides were viewed and classified using current pathological criteria.

The endometrial specimens were divided into the following histological categories: endometrial atrophy, endometrial polyp, endometrial hyperplasia and endometrial carcinoma. Cervical lesions were classified as inflammatory, polyp, dysplasia and carcinoma. Of the 100 cases, 43 have benign pathology & 57 were malignant.

RESULTS:

Postmenopausal bleeding is an important symptom, of the 100 cases who presented with this symptom 43% were benign while 57% were malignant. Patients at 55-64 years of age were the mostly affected

women by postmenopausal bleeding whether due to benign or malignant pathology.

Table 1 : Distribution of benign & malignant pathology in different age groups.

Age groups (yrs)	Benign pathology No.(%)	Malignant pathology No.(%)	Total
40-44	02 (100%)	-	02
45-54	17 (49%)	18 (51%)	35
55-64	18 (36%)	32 (64%)	50
65-74	06 (55%)	05 (45%)	11
≥ 75	-	02 (100%)	02

Table 2 : Incidence of different malignant lesion of PMB

Sl. No	Malignancy	No of Cases	%
1	Ca Endometrium	7	12%
2	Ca Cervix	46	81%
3	Ca Vagina	0	0%
4	Ca Ovary	4	8%
5	Ca Vulva	0	0%

Carcinoma cervix was found to be the most common cancer among the patients presenting with PMB. In this study ca cervix was seen in 81% of total causes followed by endometrial cancer in 12% cases.

Table 3: Incidence of different benign causes of PMB

Sl. No.	Malignancy	No Of Cases	Percentage (%)
1	Atrophic Endometrium	18	42%
	+Cervicitis	7	
	+Dysplasia	3	
2	Endometrial Hyperplasia	6	14%
3	Leiomyoma/ adenomyosis	3	7%
4	Endometrial polyp	7	16%
5	Endocervical Polyp	1	2.3%
6	HSIL	1	2.3%
7	Other Endometrial Pathology	4	9.4%
	Secretory	1	
	Proliferative	2	
	Anovulatory	1	
8	Benign ovarian tumor	1	2.3%
9	No tissue	2	5%
	Total	43	100%

Endometrial atrophy was the most frequent benign pathology (42%) found. Others include endometrial hyperplasia, endometrial polyp, cervicitis, cervical ectropion, cervical polyp, vaginal ulcer & cervical dysplasia

DISCUSSION

Genital tract bleeding in postmenopausal women is a sign of underlying pathologic condition. The peak incidence of malignancy was observed in the age group of 55-64 years.

In this study, the atrophic endometrium was the predominant finding (42%) among benign pathologies, which is comparable to the observations of Lidor et al.³ The exact cause of bleeding from atrophic endometrium is not known. It is postulated to be due to anatomic vascular variations or local abnormal haemostatic mechanism.¹⁶⁻¹⁹ Speert considers that thin walled veins superficial to expanding cystic gland make the vessel vulnerable to injury especially if cyst ruptures.²⁰⁻²³

Endometrial hyperplasia (14%) & endometrial polyp (16%) were the second frequent causes of PMB in our study. These results is similar to those found by Bafna et.al. when endometrial polyp & endometrial hyperplasia constituted 24.5% of the causes of postmenopausal bleeding.²⁸

Cervical lesions include infective and inflammatory conditions like cervicitis (16%), cervical ectropion (7%) & endocervical polyp (2.3%). The cervix and vagina are more susceptible to trauma and infection in postmenopausal age group, because of atrophic changes in cervix and with change in vaginal pH. There was a single case of ovarian granulosa cell tumour, which showed endometrial hyperplasia responsible for PMB.

The incidence of endometrial adenocarcinoma is 12 % of malignant pathologies, which is similar to studies done by Escoffery et al.²⁹, while

the carcinoma of cervix contributes to 81% malignant pathologies. The incidence of Ca cervix was more in women aged 55-64 years & this is similar to a study done by Udiqwe et al. who found that Ca cervix present with postmenopausal bleeding in 71% of cases & that it mostly affect women at 51- 60 years.²⁷

CONCLUSIONS & RECOMMENDATIONS:

1. Postmenopausal bleeding is a symptom not to be underestimated.
2. The results showed that atrophic endometrium was the most common cause.
3. Among the malignant causes, cervical carcinoma accounts for 44.4% of malignant pathologies responsible for postmenopausal bleeding. This high incidence may point to the need for more public awareness to integrate routine Pap smears screening.
4. A definitive diagnosis of post-menopausal bleeding is made by histology.
5. Malignancy cannot be ruled out until proved otherwise and justifies a thorough evaluation of patients with this symptom along with histopathological confirmation.

REFERENCES

1. Moodley M, Roberts C; Clinical pathway for the evaluation of postmenopausal bleeding with an emphasis on endometrial cancer detection. J ObstetGynaecol. 2004 Oct;24(7):736-41.
2. Iosif CS, Bekassy Z. Prevalence of genito-urinary symptoms in the later menopause. ActaObstetGynaecolScand 1984; 63 :257-60.
3. Sahdev A; Imaging the endometrium in postmenopausal bleeding. BMJ. 2007 Mar 24;334(7594):635-6.
4. Smith-Bindman R, Weiss E, Feldstein V; How thick is too thick? When endometrial thickness should prompt biopsy in postmenopausal women without vaginal bleeding. Ultrasound Obstet Gynecol. 2004Oct;24(5):558-65.
5. Gupta JK, Chien PF, Voit D, et al; Ultrasonographic endometrial thickness for diagnosing endometrial pathology in women with postmenopausal bleeding: a meta-analysis. ActaObstetGynaecol Scand. 2002Sep;81(9):799-816.
6. Garuti G, Sambruni I, Cellani F, et al; Hysteroscopy and transvaginal ultrasonography in postmenopausal women with uterine bleeding. Int J Gynaecol Obstet. 1999 Apr;65(1):25-33.
7. Litta P, Merlin F, Saccardi C, et al; Role of hysteroscopy with endometrial biopsy to rule out endometrial cancer in postmenopausal women with abnormal uterine bleeding. Maturitas. 2005 Feb;50(2):117-23.
8. van Doorn LC, Dijkhuizen FP, Kruitwagen RF, et al; Accuracy of transvaginal ultrasonography in diabetic or obese women with postmenopausal bleeding. Obstet Gynecol. 2004Sep;104(3):571-8.
9. Opmeer BC, van Doorn HC, Heintz AP, et al; Improving the existing diagnostic strategy by accounting for characteristics of the women in the diagnostic work up for postmenopausal bleeding. BJOG. 2007Jan;114(1):51-8.
10. Panda JK; One-stop clinic for postmenopausal bleeding. J Reprod Med. 2002 Sep;47(9):761-6.
11. Lotfallah H, Farag K, Hassan I, et al; One-stop hysteroscopy clinic for postmenopausal bleeding. J Reprod Med. 2005Feb;50(2):101-7.
12. Abdel-Fattah M, Barrington JW, Youssef M, et al; Prevalence of bladder tumors in women referred with postmenopausal bleeding. GynecolOncol. 2004Jul;94(1):167-9.
13. Franchi M, Ghezzi F, Donadello N, et al; Endometrial thickness in tamoxifen-treated patients: an independent predictor of endometrial disease. Obstet Gynecol. 1999 Jun;93(6):1004-8.
14. Dreisler E, Sorensen SS, Ibsen PH, Lose G. Value of endometrial thickness measurement for diagnosing focal intrauterine pathology in women without abnormal uterine bleeding. Ultrasound Obstet Gynecol. 2009;33(3):344-8.
15. Simeone S, Laterza MM, Scaravilli G, Capuano S, Sero M, Orabona P, Rossi R, Balbi C. Malignant melanoma metastasizing to the uterus in a patient with atypical postmenopausal metrorrhagia. A case report. Minerva Ginecol. 2009;61(1):77-80.
16. Thomas Grendmark, Sonja Kvint, Guillaume Havel, Lars-Åke Mattsson. Histopathological findings in women with postmenopausal bleeding. Br J of Obstet and Gynec 1995; 102:133-36.
17. Lidor A, Ismajovich B, Confino E, David MP. Histopathological findings in 226 women with postmenopausal uterine bleeding. ActaObstetGynecScand 1986; 65(1) :41-3.
18. TI Cope. Some aspects of postmenopausal bleeding. Obstet and Gynec 1956; 7(2) :153-60.
19. Ninci D, Mandi A, Ziki D, Stojiljkovi B, Mastilovi K, Ivkovi -Kapic T. Neglected case of uterine leiomyoma--case report Med Pregl. 2008;61(9-10):525-8.
20. J James A. Merrill, MD. Management of postmenopausal bleeding. Clinical Obstet and Gynec 1981; 24(1):285-99.
21. Edmond R Novak, MD. Postmenopausal bleeding. Obstet and Gynec 1961; 69 : 464-76.
22. Zubor P, Galo S, Klobusiaková D, Fiolka R, Kajo K. Validity of hysteroscopy in clinical setting: single centre analysis of 605 consecutive hysteroscopies Visnovsky Ceska Gynecol. 2008;73(6):365-9.
23. American College of Obstetricians and Gynecologists ACOG Committee Opinion No. 426: The role of transvaginal ultrasonography in the evaluation of postmenopausal bleeding. Obstet Gynecol. 2009; 113(2 Pt1):462-4.
24. Udiqwe GO, Ogabido CA. A clinico-pathological study of cervical carcinoma in South Eastern Nigeria: a five-year retrospective study. Niger J Clin Pract. 2008;11(3):202-5.
25. Schmidt T, Breidenbach M, Nawroth F, Mallmann P, Beyer IM, Fleisch MC, Rein DT. Hysteroscopy for asymptomatic postmenopausal women with sonographically thickened endometrium. Maturitas. 2009;62(2):176-8. Epub 2009 Jan 3.
26. Dreisler E, Stampe Sorensen S, Ibsen PH, Lose G. Prevalence of endometrial polyps and abnormal uterine bleeding in a Danish population aged 20-74 years. Ultrasound Obstet Gynecol. 2009;33(1):102-8.
27. Canfell K, Kang YJ, Clements M, Moa AM, Beral V. Normal endometrial cells in cervical cytology: systematic review of prevalence and relation to significant endometrial pathology. J Med Screen. 2008;15(4):188-98.
28. Udiqwe GO, Ogabido CA. A clinico-pathological study of cervical carcinoma in South Eastern Nigeria: a five-year retrospective study. Niger J Clin Pract. 2008 Sep;11(3):202-5.
29. Bifna U.D, Shashikala P. Correlation of endometrial ultrasonography and endometrial histopathology in patients with postmenopausal bleeding. J Indian Med Assoc. 2006 Nov; 104(11):627-629.
30. Escoffery CT, Blake GO, Sargeant LA. Histopathological findings in women with postmenopausal bleeding in Jamaica. West Indian Med J 2002; 51(2) :232-5.
31. Shi AA, Lee SI. Radiological reasoning: algorithmic workup of abnormal vaginal

- bleeding with endovaginal sonography and sonohysterography AJR Am J Roentgenol. 2008;191(6 Suppl):S68-73. Erratum in: AJR Am J Roentgenol. 2009 Mar;192(3 Suppl):S62.
31. Omoniyi-Esan GO, Badmos KB, Adeyemi AB, Rotimi O. Leiomyosarcoma of the uterus: a clinicopathological report of two cases and review of literature. Afr J Med Med Sci. 2008;37(3):285-8.
32. Alcazar JL, Galvan R. Three-dimensional power Doppler ultrasound scanning for the prediction of endometrial cancer in women with postmenopausal bleeding and thickened endometrium. Am J Obstet Gynecol. 2009;200(1):44.e1-6.