RESEARCH ARTICLE

Clinicopathologic Evaluation of Postmenopausal Bleeding at a Tertiary Care Center

D Sundarabai Bebincy, Shanmugam PAP Meena[2]

Abstract

Aim: The aim of the study was to evaluate the various causes of postmenopausal bleeding and incidence of various genital tract malignancies contributing to postmenopausal bleeding.

Study design: Prospective interventional study.

Place and duration of study: Kanyakumari Government Medical College Hospital, Asaripallam, from January 2017 to December 2017.

Materials and methods: All women attending the gynecology outpatient department with complaints of postmenopausal bleeding during the study period were included in the study. History, clinical examination, and USG pelvis were done in all cases. CT, MRI abdomen, and pelvis were done for indicated cases. Hysteroscopically directed endometrial evaluation and sampling were done for all, except carcinoma cervix, carcinoma vulva, and carcinoma vagina.

Results: Of the 62 cases, 30 cases were benign, 32 cases were malignant. The most common cause of postmenopausal bleeding was a carcinoma cervix followed by an atropic endometrium.

Conclusion: Postmenopausal bleeding should be thoroughly evaluated and treated since there is a higher incidence of malignant etiology.

Keywords: Endometrium, Menopause, Postmenopausal bleeding.

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Introduction

Postmenopausal bleeding is a frequently encountered complaint in gynecology outpatient department. Postmenopausal bleeding (PMB) is defined as uterine bleeding occurring after at least 1 year of amenorrhea in the menopausal age group.[1] Though commonly due to a benign etiology, the existence of underlying malignancy should also be ruled out. Patients with PMB have a 10–15% chance of having an endometrial carcinoma.[2–6] Therefore, we need an effective and prompt evaluation of PMB to exclude malignant and premalignant lesions of the female genital tract. The prevalence of endometrial polyps and hyperplasia is estimated to be 40%.[2,3]

The etiology of postmenopausal bleeding include nongynecological causes such as trauma or a bleeding disorder, use of hormone replacement therapy, vaginal atrophy, endometrial hyperplasia (simple, complex, atypical), and endometrial carcinoma (usually presents as PMB but 25% occur in premenopausal women). Other causes include endometrial polyps, cervical polyps, carcinoma cervix, uterine sarcoma, hormone secreting ovarian tumors, vaginal carcinoma, and vulval carcinoma.

Materials and Methods

Patients who presented with postmenopausal bleeding during the period from January 2017 to December 2017 at Kanyakumari Government Medical College were included in the study.

Inclusion criteria: patients with postmenopausal bleeding.

Exclusion criteria: nil.

These patients with postmenopausal bleeding were elicited history regarding age of menopause, duration of bleeding, amount of bleeding, hormonal intake, a past history of surgeries, parity, and risk factors such as diabetes, hypertension, and obesity. A thorough clinical examination of BMI, abdomen examination, speculum examination, and bimanual pelvic examination were done. USG pelvis is done in all cases. Uterine size, endometrial thickness, endometrial polyps, fibroids, adnexal masses etc. were noted. CT and MRI were done in malignant cases. Hysteroscopy was done in all cases under IV sedation except clinically proved carcinoma cervix, vagina, and vulva. Distension medium used was normal saline biopsy from growth in ca cervix, vagina, and vulva is taken and sent for HPE. VIA and VILI is done all cases except active bleeding patients, Ca cervix, vagina, and vulva.

Results

During the study period of one year from January 2017 to December 2017, 62 cases presented with postmenopausal bleeding (Table 1). Of these, 30 were benign and 32 were malignant. A maximum number of patient attained menopause between 46 years and 50 years (27 cases). The onset of postmenopausal bleeding is maximum between 46 years and 55 years (25 cases). Benign etiology is more than malignancy in 45- to 54-year-age group (11:2). Both benign and malignancy is equally distributed in 55- to

[1,2]Department of Obstetrics and Gynaecology, Kanyakumari Government Medical College and Hospital, Asaripallam, Kanyakumari, Tamil Nadu, India

Corresponding Author: D Sundarabai Bebincy, Department of Obstetrics and Gynaecology, Kanyakumari Government Medical College and Hospital, Asaripallam, Kanyakumari, Tamil Nadu, India, Phone: +91 9443794605, e-mail: bebincysuneer@gmail.com

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Table 1: Age of attaining menopause

Age of menopause (years)	*Number of patients*	*Percentage*
<46	21	33.87
46–50	27	43.55
51–55	14	22.58
>55	0	0
Total	62	100

Table 2: The onset of symptoms from the age of menopause

*Duration of menopause (years)**	*No. of patients*	*Percentage*	*Benign*	*Malignant*
<5	19	30.64	18	1
5–10	10	16.13	5	5
11–20	13	20.97	5	8
21–30	16	25.81	1	15
>30	4	6.45	1	3

*As the duration of menopause increases, the onset of postmenopausal bleeding is more likely to be a malignant etiology

Table 3: Parity

Parity	*Number of patients*
Nullipara	2
Para 1 and 2	25
Para 3 and above	35

Table 4: Association of PMB with medical disorders and risk factors

Diabetes mellitus only	14
Hypertension only	10
Both DM and HT	15
Underweight	5*
Obese	24
Hypothyroid	2
No illness	21
Terminal in take	Nil

*All the five underweight cases are advanced cases of Ca cervix

64-year-age group (1:1). Ca cervix is the commonest malignancy seen in women >64 years followed by ca endometrium, which is commonly seen in women <65 years. So if a women with >64 years has postmenopausal bleeding, the probability of ca cervix is more, whereas in 55- to 64-year-age group, both atropic endometrium and carcinoma endometrium has to be kept in mind. One 75-year-old lady had postmenopausal bleeding. USG showed hematometra with a mass from the endometrium invading myometrium and serosa. MRI also suggested features of endometrial carcinoma. She had atropic endometrium on endometrial sampling. Staging laparotomy revealed an atropic uterus and a left solid ovarian mass. HPE revealed a fibrothecoma of the ovary.

In our study, even if the endometrial thickness in 4–5 mm, ca endometrium is seen. So by endometrial thickness, we cannot predict endometrium carcinomas. Histopathological evaluation of the endometrium should be done to rule out the endometrial carcinoma.

Discussion

Postmenopausal bleeding is a significant complaint of the postmenopausal women. It is common in 45- to 55-year-age group in our study. But the mean age of presentation in other studies was 63.6 ± 9.3 years (Table 2).[7,8]

Most of the PMB patients were multiparous associated with medical illnesses such as hypertenstion, diabetes, and obesity. Out study also showed the same association (Tables 3 and 4).

Excluding ca cervix and ca vagina, all the other cases underwent a endometrial histopathological study. The commonest histopathology of endometrium was atropic endometrium (66.6%) followed by endometrial hyperplasia (26.6%) but in the study by Kothapally et al., proliferative endometrium is the commonest histopathology followed by atropic endometrium (16.6%) and cystoglandular hyperplasia 10%.[9] Various other studies also showed the same pattern (Tables 5 and 6).[10–12]

Malignancy was the etiology in 32 cases (51.61%). Ca cervix was the most common malignancy (33.9% of the total cases) followed by ca endometrium (16.1%). In the study by Lee et al., malignancy was seen in 25.7% cases and ca cervix was the most common malignancy (12.9% of the total cases) followed by ca endometrium (11%) (Table 7).

Table 5: The distribution of benign and malignant pathologies in different age groups

Age group (years)	*Benign*	*Percentage*	*Malignant*	*Percentage*	*Total case*
<45	2	6.67	0	0	2
45–54	11	36.67	2	6.25	13
55–64	11	36.67	11	34.38	22
65–74	4	13.33	11	34.38	15
≥75	2	6.67	8	25	10
Total	30	100%	32	100%	62

Table 6: Distribution of different benign pathologies in different age groups

Age group (years)	*Endometrial atrophy**	*Endometrial hyperplasia*	*Endometrial polyp*	*Cervical polyp*
<45	0	2	0	0
45–54	5	4	1	1
55–64	10	1	0	0
65–74	3	1	0	0
75	2	0	0	0
Total	20	8	1	1
Percentage	66.66%	26.66%	3.33%	3.33%

*Endometrial atrophy is the most common benign etiology

Table 7: Distribution of malignant pathologies in different age groups

Age group (years)	*Carcinoma cervix*	*Carcinoma endometrial*	*Carcinoma vagina*
<45	0	0	0
45–54	1	1	0
55–64	6	5	0
65–74	7	3	1
≥75	7	1	0
Total	21	10	1
Percentage	65.62	31.25	3.125

In our study, all the ca cervix cases were stage IB and above. All underwent chemoradiotherapy from the Regional Cancer Center. Now done to implementation of National NCD (NonCommunicable Disease) Program, VIA, VILI is done for all women ≥30-years-age. So now more number of premalignant and early stages of ca cervix are diagnosed and treated. So the incidence of advanced carcinoma cervix will be markedly reduced.

Conclusion

Postmenopausal bleeding should be thoroughly evaluated and treated since there is a higher incidence of malignancy.

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