

Clinical evaluation of postmenopausal bleeding at a tertiary care center

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Abstract

Background: In this era, as life expectancy is increasing women are experiencing a longer postmenopausal phase. Postmenopausal bleeding is an alarming symptom in this age group although only 10% of postmenopausal women have postmenopausal bleeding. In developed countries the risk of endometrial cancer in postmenopausal bleeding women is high whereas risk of cervical cancer is higher in developing countries. This prospective study was carried out on 82 consecutive patients presenting with postmenopausal bleeding attending gynaecology Clinic at a tertiary care center. **Material and Methods:** The present study was a hospital based prospective study conducted in the department of Obstetrics and gynaecology in post-menopausal women with complaints of per vaginal bleeding. **Results:** After applying inclusion and exclusion criteria, 82 patients were selected for present study. Most patients had menopause after 45 years (84 %), only 16 % were from age group 40-45 years. We noted that Age of postmenopausal bleeding (years) was 50-60 years in 56% patients followed by 30 % in > 60 years age. 66 % patients had > 2 parity. Hypertension (20%), Diabetes mellitus (11%), Overweight (50-100kg) (22%), Obesity (>100kg) (4%), Hypothyroidism (4%) were common medical problem in present study. In present study 57 (70%) cases were benign, while 25 (30 %) were malignant. Proliferative (22%), atrophic (13%), cystoglandular hyperplasia (10%), endometrial hyperplasia (9%) were common benign conditions and well differentiated squamous cell carcinoma (16%) and well differentiated endometrioid type (6%) were common malignant conditions. **Conclusion:** Apart from common benign lesions, carcinoma cervix and carcinoma endometrium are commonly seen in postmenopausal women with complaints of postmenopausal bleeding. Early diagnosis can certainly improve quality life and reduce mortality and morbidity.

Keywords: Post menopausal bleeding, Cervical Carcinoma, Endometrial thickness, Endometrial carcinoma.

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INTRODUCTION

WHO has defined postmenopausal bleeding (PMB) as an episode of bleeding twelve months or more after the last menstrual period following menopause resulting from loss of ovarian activity.¹ Average age at menopause in Indians is around 45 to 50 years¹. In this era, as life expectancy is increasing women are experiencing a

longer postmenopausal phase. Postmenopausal bleeding is an alarming symptom in this age group although only 10% of postmenopausal women have postmenopausal bleeding². It accounts for a significant proportion of gynecological referrals due to suspicion of underlying malignancy. Cervical cancer is the fourth most common cancer in the world and India alone accounts for 25% of its burden worldwide. Nearly 70% of the women with cervical cancer presents to the hospital at advanced stages where the 5-year survival rate is only 50%³. Cervical cancer is one of the common malignancies presenting as postmenopausal bleeding in developing countries. Premalignant and malignant lesions of the cervix may also present as postmenopausal bleeding⁴. In developed countries the risk of endometrial cancer in postmenopausal bleeding women is high whereas risk of cervical cancer is higher in developing countries⁵. Endometrial and cervical cancers if detected early, can be cured completely. Endometrial hyperplasia is one of the

most important predisposing factors for the development of endometrial carcinoma. Atypical endometrial hyperplasia has a higher risk of malignant transformation than with endometrial hyperplasia without atypia⁵. This prospective study was carried out on 82 consecutive patients presenting with postmenopausal bleeding attending Gynaecology Clinic at a tertiary care center.

MATERIAL AND METHODS

The present study was a hospital based prospective study conducted in the department of Obstetrics and Gynaecology from August 2018 to September 2019. Approval was taken from Institutional ethical committee for present study.

Inclusion Criteria

Post-menopausal women with complaints of per vaginal bleeding.

Exclusion Criteria

Patients with bleeding disorders/blood dyscrasias. Patients on anticoagulant therapy. Premature menopause whether surgical, natural, radiation or Chemotherapy

induced. Age less than 40 years. Patients on hormone replacement therapy. Injuries to genital tract.

Written and informed consent was taken. The history of postmenopausal bleeding varied from spotting per vagina, brownish discharge, scanty flow and moderate to profuse bleeding, presenting six months or more after menopause. Patients were evaluated by history, clinical examination and investigations like abdominal/transvaginal sonography, endometrial biopsy done with fractional curettage, Papanicolau smear, cervical biopsy, hysteroscopic guided biopsy if required was done for all subjects. In few of the cases simultaneous endometrial and cervical biopsies were done. Later few patients underwent hysterectomy. Histopathology reports for present study were collected from the endometrial, cervical biopsies and hysterectomy specimens sent for histopathological examination to the department of Pathology. Data was collected in proforma, entered in Microsoft excel sheet and analysed.

RESULTS

After applying inclusion and exclusion criteria, 82 patients were selected for present study. Most patients had menopause after 45 years (84 %), only 16 % were from age group 40-45 years. We noted that Age of postmenopausal bleeding (years) was 50-60 years in 56% patients followed by 30 % in > 60 years age. 66 % patients had > 2 parity. Hypertension (20%) , Diabetes mellitus (11%), Overweight (50-100kg) (22%) , Obesity (>100kg) (4%), Hypothyroidism (4%) were common medical problem in present study.

Table 1: Distribution of age, parity and medical history of menopausal women

	No. of patients (N=30)	Percentage (%)
Age of menopause (years)		
40-45 years	13	16%
45-50 years	32	39%
>50years	37	45%
Age of postmenopausal bleeding (years)		
45-50 years	11	13%
50-60 years	46	56%
>60years	25	30%
Parity		
Nullipara	9	11%
Para 2	19	23%
> 2 para	54	66%
Medical disease		
Hypertension	16	20%
Diabetes mellitus	9	11%
Overweight (50-100kg)	18	22%
Obesity (>100kg)	3	4%
Hypothyroidism	3	4%

In present study 57 (70%) cases were benign, while 25 (30 %) were malignant. Proliferative (22%), atrophic (13%), cystoglandular hyperplasia (10%), endometrial hyperplasia (9%) were common benign conditions and well differentiated squamous cell carcinoma (16%) and well differentiated endometrioid type (6%) were common malignant conditions.

Table 2: Histopathological findings

Histopathological findings	No. of patients	Percentage (%)
Benign	57	70%
Proliferative	18	22%
Atrophic	11	13%
Cystoglandular hyperplasia	8	10%
Endometrial hyperplasia	7	9%
Endometritis	6	7%
Fibroids	4	5%
Endometrial polyp	3	4%
Malignant	25	30%
Cervical carcinoma	15	18%
Well differentiated squamous cell carcinoma	13	16%
Moderately differentiated squamous cell carcinoma	2	2%
Endometrial carcinoma	9	11%
Well differentiated endometrioid type	5	6%
Moderately differentiated	2	2%
Villoglandular type	1	1%
Poorly differentiated	1	1%

DISCUSSION

Postmenopausal bleeding is a sinister complaint of postmenopausal women. It is common between 5-10 years after reaching menopause and common age predilection is between 50-60 years.⁶ Etiology of post menopausal bleeding includes benign causes like proliferative or atrophic endometrium, endometrial polyp or cervical polyp, endometrial hyperplasia (simple, complex with or without atypia) and malignant causes like endometrial carcinoma, cervical carcinoma, uterine sarcoma, estrogen secreting ovarian tumors, vaginal and vulval carcinoma. Rare causes are chronic endometritis of tuberculosis, thrombocytopenia, leukemia, usage of anticoagulants and secondary coagulopathy from liver disease. Even though the most frequent causes of post menopausal bleeding are benign conditions, it is important to exclude atypical hyperplasia and endometrial carcinoma by thorough investigations. Patient characteristics like multiparity, early marriage, multiple sexual partners are risk factors for cervical cancer; advanced age, obesity, early menarche, late menopause, hypertension, diabetes mellitus, nulliparity etc., can increase the probability of having endometrial cancer in patients with post menopausal bleeding. Post menopausal bleeding has been evaluated by clinical examination, pelvic ultrasound, investigations like pap smear and fractional curettage in this study. Ultrasound pelvis is an appropriate first-line procedure to identify which woman with post-menopausal bleeding is at higher risk of endometrial cancer. In general, the thicker the endometrium, the higher the probability of important pathology i.e. endometrial cancer being present. Transvaginal ultrasonography (TVS) is the recommended first line non invasive procedure for assessing the endometrium in women with PMB. Measurement of endometrial thickness by TVS having a cut off of >4mm yields 98% sensitivity for detection of endometrial carcinoma. Hysteroscopy and biopsy (curettage) is the preferred diagnostic technique to detect benign lesions. As

such there are several investigations available to complement clinical evaluation, including ultrasound, endometrial histology and hysteroscopy to evaluate the underlying etiology of PMB⁷. The office vaginoscopic hysteroscopy is populated as replacing for traditional approach especially in postmenopausal women due to it is performed without vaginal speculum, neither cervical tenaculum nor cervical dilatation. The patient requires no systemic sedatives or medications as the procedure is usual painlessly, no injury to vaginal outlet.^{8,9} Women with PMB has a 10% risk of having genital malignancies such as cervical cancer, endometrial cancer, vaginal, ovarian, and vulval cancers along with a 10% risk of significant pathology¹⁰. Although PMB is often associated with benign pathologies, the possibility of having an underlying malignancy makes it a sinister complaint requiring thorough clinical work up. Evidence has shown that early detection of cervical and endometrial cancer improves the cure rate and reduces mortality¹¹. A community-based cross-sectional study conducted by Aswathy *et al.* in Rural Kerala and a hospital-based study conducted by Harsha Kumar in Mangalore also reported a low screening level of 6.9% and 7.2%, respectively.^{12,13} Most patients had menopause after 45 years (84 %), and age of postmenopausal bleeding was 50-60 years. The duration of menopause before the onset of postmenopausal bleeding ranged from 2-17 years and the majority of them presented after 5 years of cessation of normal menstruation. This is in correlation with the studies done by Ubeja *et al.*². We noted that carcinoma cervix was most common malignancy, also noted by various other Indian studies, while endometrial carcinoma as the most common malignant cause for postmenopausal bleeding was noted by Sonali Rathi *et al.*⁵ and Arati mallick^{16,17}. Among the 454 postmenopausal patients in one of the study, final diagnosis was cancer cervix in 6.6% cases, atypical hyperplasia in 0.2%, hyperplasia without atypia in 2%, polyps in 37.7%, fibroid in 6.2%, proliferative/secretory in

14.5% and hypertrophy/atrophy in 30.8% cases¹⁸. The complex atypical hyperplasia has 25-30% incidence of progression to invasive carcinoma while simple hyperplasia has only 1% incidence of progression. In general, the basic picture of post-menopausal endometrium is atrophic, the endometrial hyperplasia occurs in the presence of high estrogen concentrations. The presence of functional endometrium in 32% of our postmenopausal women is a concern. Sharma *et al.* reported 32.5% had functional endometrium as cause of PMB. Long term follow up examination of these patients is needed⁴. Endometrial hyperplasia/ proliferative endometrium occurs in 5%–10% of patients with postmenopausal uterine bleeding, mainly due to oestrogen. The source of excess oestrogen should be considered, including obesity, exogenous oestrogen or an oestrogenic-secreting ovarian tumour. Clinically significant hyperplasia usually evolves within a background of proliferative endometrium as a result of protracted oestrogen stimulation in the absence of progesterone influence. Not only is endometrial hyperplasia important because of the possibility of abnormal uterine bleeding but it may also precede or occur simultaneously with endometrial cancer. Postmenopausal bleeding is the most common presenting symptom in women diagnosed with endometrial cancer. In postmenopausal women oestrogen is considered as an established risk factor for endometrial hyperplasia and cancer.¹⁹

CONCLUSION

Apart from common benign lesions, carcinoma cervix and carcinoma endometrium are commonly seen in postmenopausal women with complaints of postmenopausal bleeding. Early diagnosis can certify improve quality of life and reduce mortality and morbidity.

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