Research Article

Socio-Demographic Profile of Patients with Postmenopausal Bleeding Attending Out-Patient Unit of a Tertiary Care Centre

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Abstract: Post- menopausal bleeding accounts for 9-10% of gynecological complaints, and 10% of patients presenting with post- menopausal bleeding are diagnosed to have carcinoma endometrium. Certain socio-demographic characteristics of patients may delay the investigation to rule out such endometrial cancer risks. We aim to study the socio-demographic profile and other associated factors in women with postmenopausal bleeding attending out-patient unit of a tertiary care center in semirural area of Kerala. This is a descriptive study conducted among all women age ≥ 45 who attended the Gynecology out-patient department with complaints of post menopausal bleeding during the periodof December 2012 to November 2013. Significant association could be obtained between post- menopausal bleeding and socioeconomic status, parity, diabetes mellitus and body mass index.
Keywords: Post-menopausal bleeding, Amenorrhea, Menopause, Carcinoma endometrium, Post- menopausal bleeding (PMB), Body Mass Index (BMI)

INTRODUCTION

Menopause is described as permanent cessation of menstruation resulting from loss of ovarian activity. Normally one year of amenorrhea after the age of forty is considered as menopause. But vaginal bleeding occurring after six months amenorrhea in the menopausal age should be considered as post-menopausal bleeding [1]. Post- menopausal bleeding accounts for 9-10% of gynecological complaints [2, 3]. 10% of patients presenting with post- menopausal bleeding are diagnosed to have carcinoma endometrium. At the same time 90% of the patients with carcinoma endometrium present with post-menopausal bleeding, therefore it is important to evaluate all patients with post-menopausal bleeding to rule out malignancies of the genital tract. Other causes of post- menopausal bleeding including atrophic endometrium (60%),endometrial hyperplasia (10%),carcinoma cervix (10%) and other rare conditions (10%) [4].

Endometrial cancer is a common genital malignancy in developed country [5]. Unlike other malignancies endometrial cancer often presents early in the course of disease, and there is a possibility of curative treatment. Survival rate decreases with advanced stage and lower histopathological differentiation, and therefore accurate and timely diagnosis is important. Accurate diagnosis is possible with invasive endometrial studies. Identification of risk factors is thus significant for prompt investigation and diagnosis of the condition. In this study we aimed to demonstrate the various socio-demographic factors and other related factors of women presenting with post- menopausal bleeding in an outpatient Gynecology departmentof tertiary care center of a semirural area.

MATERIALS AND METHODS

This study was a descriptive study conducted in an outpatient Gynecology department of a tertiary care centre in Kerala state of India. The study period was one year, December, 2012 to November, 2013. The total of 60 women, all women presenting with bleeding after six months of amenorrhea above the age of 45 years were included in this study. The patients of age less than 45 years, patients on anticoagulant therapy and hormonal therapy other than tamoxifen and Hormone replacement therapy were excluded from this study. The

socio economic status was studied with modified Kuppuswamy's socioeconomic scale, updated for 2012 and was classified as low middle and high socioeconomic status group.

After obtaining consent, detailed history was recorded and clinical examination conducted as per pre-testedstructured proforma with emphasis to risk factors of carcinoma endometrium. Ultrasound assessment of endometrial thickness was done followed by endometrial sampling to arrive at a diagnosis.

Ethical committee clearance was obtained from the hospital ethical committee. Statistical analysis was done with SPSS software package version 12.

RESULTS

The total number of patients attending the gynecology outpatient department above the age of 45 was 182 in the one year study period. Of these, 60 patients had complaints of post-menopausal bleeding, which account to 32.9% of the total gynecology outpatient cases per year.

The majority, 43 % of the women belongs to less than sixty years of age, and 20% of the patients belong to 55-59 years of age group (Fig 1). The youngest patient was of 45 years of age and the oldest being 80 years of age. The mean age was 55.5years with a standard deviation of 6.4 years.
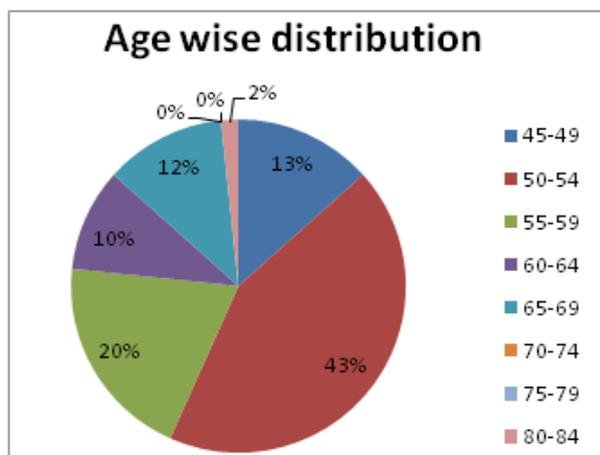

Fig. 1: Age wise distribution of patients

The socioeconomic status of the patients presenting with post-menopausal bleeding were assessed using Kuppuswamy's socioeconomic scale, and the majority, 83.3% of the patients belongs to middle socioeconomic class. Only 5% belongs to high socioeconomic class (Table 1).

Table 1 Distribution of patients based on socioeconomic class

Socioeconomic class	Frequency	Percentage
Low	7	11.7
Medium	50	83.3
High	3	5
total	60	100

Out of this 60 patients with post menopausal bleeding, 61% (N=27) patients attained menarche at 13 years of age and 23 % (N=14) attained menarche at 12 years. The maximum age at menarche was 16 years. There was increased incidence of postmenopausal bleeding with early onset menarche (Chi square 33.55 and P value <0.01). The average age of menopause in this study group was 49.5 years with Standard deviation of 2.9 years.

The mean interval from menopause to post menopausal bleeding was 4 years with a standard deviation was 6.5 years. The lowest interval reported was 1 year and the maximum was 40 years. The maximum number of PMB occurred within first ten years of menopause.

Majority, 76.7% of the patients with PMB were in the group of parity of 2-3, and 10% had more the four.

Table 2 Parity and post-menopausal bleeding

Parity	Number	Percentage
0-1	8	13.3
2-3	46	76.7
≥4	6	10
Total	60	100

The study also showed, 63.3% of the women with PMB were overweight (BMI, 25-29.99), 28.3% were in normal weight category (BMI, 18.5 to 24.99) and 6.6% were obese patients (BMI, >30).48% (No=29) of the women with PMB was suffering from diabetes mellitus, and was on treatment. The majority, 73.3% of the women with PMB were hypertensive and on treatment at the time of diagnosis.

Breast feeding is said to have protective effect on the incidence of post- menopausal bleeding. This study shows that 68.3% of the women with PMB had duration of breast feeding 3 to 5 years in her lactating period, and only 13.3% had less than two years duration (Table 3).

Table 3: Duration of breast feeding and post-menopausal bleeding

Duration of breast feeding	Number	Percentage
≤2 years	8	13.33
3-5 years	41	68.3
≥6 years	11	18.33
total	60	100

The majority, 98.3% of the women with PMB had regular menstrual cycles before menopause, and 45% were undergone sterilization technique as a method of family planning, whereas 55% of the women with PMB were not adopted sterilization technique as a family planning method.

Study of thyroid dysfunction in these women also did not show any statistically significant association. No statistically significant association could be proved between known risk factors like hormone replacement therapy and tamoxifen therapy as none of our patients were exposed to these. Similarly protective effect of oral contraceptive pill also could not be studied.

Although history of malignancy of breast, colon, rectum, and hereditary non polyposis colon cancer (HNPCC) are associated with carcinoma endometrium there was no history of malignancy in any of the cases studied. No association could be proved with either personal history or family history of malignancy.

DISCUSSION

With improvement in medical treatment and increased focus on preventive care, the average life expectancy has increased [6]. Most women live one third of their lives after menopause. Abnormal vaginal bleeding is the most common gynecological problem and post-menopausal bleeding ranks as the most sinister one as it is associated with genital tract malignancy [5].

Post- menopausal bleeding is a symptom of varied etiology. It is associated with high incidence of genital tract malignancy. It is there-fore mandatory to perform a thorough diagnostic evaluation in patients with post-menopausal bleeding.An accurate diagnosis will not only make it much easier to counsel the patient confidently about the appropriate course of action but also facilitate carrying out the proper treatment plan.

In our study the risk factors for carcinoma endometrium were assessed in detail as 90% of patients with carcinoma endometrium presents with complaints of post-menopausal bleeding [7].

From the study conducted 78.4% of patients with post- menopausal bleeding were in the age group ≤60 years. The youngest age of the patient was 45 years. 43.6% were of age group between 50 and 54 years and 20 % were between 55 and 59 years of age. In an earlier study the total incidence of postmenopausal bleeding in gynecological out- patient department was 10 % of which the majority was benign [3, 8]. In another study maximum cases of post- menopausal bleeding were between 45 and 54 years [9].

In our study it was seen that the majority of cases the patients belonged to the middle socioeconomic status (83%) and 11.7% were of lower socioeconomic status. In a previous similar study the majority of patients belonged to lower socioeconomic status [9]. Study of literature reveals that the incidence of post- menopausal bleeding increases with increase in socioeconomic status [2].

Early menarche, late menopause and decreased parity are said to be risk factors for development of post-menopausal bleeding carcinoma endometrium [10-12]. In our study 23.3% of women had menarche before 12 years and 61.7 % the age of menarche was 13 years.

The average age of menopause in our study was 49.5 years with standard deviation of 2.9 years. The study also showed that when the age of menopause was after 50 years the incidence of postmenopausal bleeding was 50% [12].

Similarly lower the parity, higher was the incidence of post- menopausal bleeding in our study as reported in the literature [12].

The duration of breast feeding also influence the occurrence of post- menopausal bleeding and endometrial malignancy It is seen from other reported studies and index study that increased duration of breast feeding decreased the estrogen secretion [13].

Diabetes mellitus, increased body mass index and hypertension are triad of metabolic disorders that increase the incidence of postmenopausal bleeding and risk of carcinoma endometrium Various studies have described the increased incidence of PMB and hence carcinoma Endometrium with Type 2 diabetes mellitus [10, 14]. Various models have been developed to studythe risk factors in diagnosing carcinoma endometrium like DFAB and DEFAB(D- Diabetes Mellitus, F Frequency of menstruation, A-Age, B Body Mass Index, E Endometrial thickness) [15].The index study also shows that 48.3% of patients with post - menopausal bleeding had diabetes mellitus.

Obesity is another risk factor studied. Increased body mass index is one of the major risk factors for post-menopausal bleeding and hence malignancy [10, 15-17]. In our study 70% with post- menopausal bleeding had BMI of ≥25 proving this prolonged period of amenorrhea due to polycystic ovarian syndrome in the reproductive period is an independent risk factor. In our study only 1.7% of the patients with PMB had similar history which was not statistically significant.Infertility is another factor that is described as high risk. Again we did not have any patients in the study group with infertility treatment. As none of our patients were on hormone replacement therapy or Tamoxifen we were unable to study the association which is considered to be an independent risk factor [18].

History of other malignancies like malignancy of breast colon and rectumare associated with [11]

increased incidence of carcinoma endometrium. But our study did not have any patients with these conditions.

CONCLUSION

The **o**bservational study conducted on women with post- menopausal bleeding in a tertiary care center identified risk factors that increase the incidence of post- menopausal bleeding and thus carcinoma endometrium. Statistically significant association could be obtained between post- menopausal bleeding and socioeconomic status, age of menarche, age of menopause, parity, years of breast feeding, Diabetes mellitus and body mass index.

Abbreviations

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