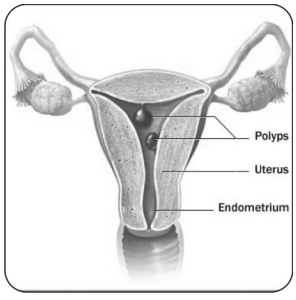
ORIGINAL **PROF-1281**

POST MENOPAUSAL BLEEDING



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ABSTRACT...Objective: To find out the causes of postmenopausal bleeding and their correlation with medical illness. DESIGN: Single centre, cross sectional study. **Place and duration:** The department of obstetrics and gynaecology, Shaikh Zayed Postgraduate Medical Institute and hospital, Lahore from 1st August 2000 to 30th June 2002. **Subjects and methods:** All the patients with post menopausal bleeding diagnosed during the study periods were included, except patients after hysterectomy and premature menopause. Relative informations were filled in a Performa and informations were taken from case records. **Results:** Total 50 patients were included in the study. Maximum number of patients with postmenopausal bleeding were between 56-60 years (32%). Most of the patients were having parity between 4-6 (48%). Majority of patients (32%) had symptom about 10 years after menopause. Hypertension, diabetes and obesity were commonly found medical illness in these patients, especially when cause is endometrial carcinoma, ultrasound scan, Pap smear and endometrial biopsy are essential to rule out cause of post menopausal bleeding. 70% patients were having benign cause while 30% patients had malignant cause for post menopausal bleeding. **Conclusion:** Carcinoma of genital tract is one of the most important cause of postmenopausal bleeding, so early detection of the cases can be life saving. Detailed medical evaluation, aid of ultrasonography, Pap smear and endometrial biopsy is required to find the cause of postmenopausal bleeding.

Key words: Post menopausal bleeding, Pap Smear, Carcinoma

INTRODUCTION

The term menopause is derived from the Greek words menos (month) and pause (to stop). It means complete or permanent cessation of ovarian function and consequently menstruation.

Menopause is the last menstrual bleed and it can be diagnosed retrospectively after one year of amenorrhoea[1].

The average age of menopause is 51 years[2]. Any bleeding after menopause must be investigated promptly as it is the common presentation of endometrial and invasive cervical cancer. About 90% of patients with endometrial cancer present with postmenopausal bleeding, however 10% of patients with postmenopausal bleeding have endometrial cancer[3].

Patients with endometrial hyperplasia can present with post menopausal or perimenopausal bleeding. Although cystic and adenomatous hyperplasia are rarely associated with endometrial carcinoma. But carcinoma may occur in 25-50% of cases with atypical hyperplasia.

A cervical smear and endometrial biopsy is required in all cases of postmenopausal bleeding. Survival of patients with endometrial cancer increases with early detection by endometrial curettage[4]. However curettage biopsy can fail in cases of polyp and cancer. The histopathology of hysterectomy specimen can confine the diagnosis.

A total number of 50 patients with postmenopausal bleeding were included in the study. A detailed history and examination was carried out. All the patients were investigated including complete examination of blood, blood sugar, renal function tests, x-ray chest, ECG and pelvic ultrasonography to assess the endometrial thickness and localize any ovarian pathology. Cervical cystology and cervical biopsies were done in suspicious cases. Dilatation and curettage was done under general anesthesia and specimen were sent for histopathology.

AIM AND OBJECTIVES

1. To find out common causes of postmenopausal bleeding.
2. To find out correlation between age, parity and medical illness with the causes of postmenopausal bleeding.

STUDY DESIGN

Retrospective study.

PERIOD

1st August 2000 to 30th June 2002.

SETTING

Department of Obstetrics and Gynaecology at Shaikh Zayed Federal Postgraduate Medical Institute and Hospital, Lahore.

PATIENTS & METHODS

50 cases records of postmenopausal women were studied.

INCLUSION CRITERIA

Patients with their last menstrual periods at least one year before their symptom of bleeding were selected from out patient department and emergency. Patients with postmenopausal blood stained discharge were also included.

EXCLUSION CRITERIA

Patients with hysterectomy and premature menopause (before 40 year of age) were not included in the study.

METHODOLOGY

Patient case records were reviewed from files and data was collected including age, parity, weight, menstrual history, past medical history, family history and drug history including hormone replacement therapy. Information about general, systemic examination and investigations including Pap smear, pelvic ultrasonography, fractional curettage and histopathology was taken.

STATISTICAL ANALYSIS

Simple statistical analysis of the data was done and results were tabulated.

RESULTS

In this study 50 numbers of patients with postmenopausal

bleeding were included. Table-I shows that mean age of patients with post menopausal bleeding is 55.3 years. Maximum number of patients were between 56-60 years i.e. 16 patients (32%).

Table-I. Age distribution in patients with post menopausal bleeding (n=50)

Age (years)	No. Of Pts.	%age
45-50	15	30
51-55	08	16
56-60	16	32
61-65	04	08
> 65	07	14
Mean age 55.3 ± 2.55 years		

Table-II is regarding parity, most of the patients had parity between 4-6 (48%). Only 2% patients were nullipara.

Table-II. Reproductive status of patients with post menopausal bleeding (n=50)

Parity	No. Of Pts.	%age
Nullipara	01	02
Para 1-3	07	14
Para 4-6	24	48
Para > 6	18	36

Table-III shows that 42% of patients had postmenopausal bleeding 10 years after menopause and only 20% had symptom within 5 years of menopause.

Table-III. Age distribution in patients with post menopausal bleeding.

Time (years)	No. Of Pts.	%age
< 5	10	20
6-10	19	38
> 10	21	42
Mean age 8.2 ± 0.23		

Table-IV is about association of medical illness with postmenopausal bleeding. Hypertension and diabetes were found to be the most common medical illnesses.

Table-IV. Associated medical illness in patient with post menopausal bleeding (n=50)

Medical illness	No. Of Pts.	%age
Hypertension	15	30
Diabetic	08	16
Obesity	16	32
Other	04	08
No disease	07	14
**total varies due to multiple illnesses.*		

Table-V is showing that every patient with endometrial carcinoma was having either one or more medical illnesses.

Table-VI shows ultrasonographic finding in patients with postmenopausal bleeding. Endometrial thickness was the most important parameter. It was >5mm in 46% patients.

Table-VII and VIII are about the method of diagnosing the causes of postmenopausal bleeding. In this study main method was fractional curettage and Pap smear was done in 40 cases.

Table-V. Percentage of medical illness in patients with Ca. Endometrium (n=5)

Medical illness	No. Of Pts.	%age
Hypertension	04	80
Diabetic	01	26
Obesity	02	40
Other	01	20
No disease	01	20
**total varies due to multiple illnesses.*		

Table-VI. Ultrasonography findings in patients with post menopausal bleeding (n=50)

USG	No. Of Pts.	%age
1. Uterine size	42	
Atrophic	10	20
Normal	22	44
Enlarged	10	20
2. Endometrial thickness	42	
≤ 5mm	19	38
≥ 5mm	23	46
3. Ovarian size	42	
Normal	7	14
Cyst/mast	35	70
4. Fluid in cul-delsac	42	
Seen	02	04
Not seen	40	80
Note: Ultrasonography was not done in 8 cases.		

Table-VII. Method diagnosing the cause of post menopausal bleeding (n=50)

Method	No. Of Pts.	%age
Fractional curettage	25	50
EUA + cervical biopsy	08	16
Hysterectomy	13	26
Laparotomy + biopsy	03	06
Vuval biopsy	01	02

Table-VIII. Results of cervical screening in patients with post menopausal bleeding (n=50)

Pap smear	No. Of Pts.	%age
Inflammatory change	34	68
Malignant change	02	04
Not done	10	20
Inadequate	04	08
**total varies due to multiple illnesses.*		

Table-IX gives detail of all the causes of postmenopausal bleeding. 30% patients were having malignant cause while 70% were having benign causes. Out of malignant causes cervical carcinoma was the most common i.e. 14%.

Table-IX. Histopathological finding (n=50)

	No. Of Pts.	%age
Benign cause		
Benign polyps	08	16
Atrophic endometrium	16	32
Proliferative endometrium	04	08
Secretary endometrium	07	14
Endometritis		
Simple hyperplasia	01	02
Adenomatous hyperplasia		
Leiomyoma		
Insufficient		
Lichenoid lesion		
Malignant		
Endometrial carcinoma	05	10
Cervical carcinoma	07	14
Ovarian carcinoma	03	06

DISCUSSION

The incidence of postmenopausal bleeding decreases with increasing age while the probability of cancer as the underlying cause increases[5]. The mean age of patients with endometrial cancer is 61 years with 80% of women being postmenopausal[1]. This study also shows that mean age of patients with endometrial cancer is 61.2 years.

The risk of endometrial carcinoma in women with postmenopausal bleeding rises with age from about 1% at the age of 50 years to about 25% at the age of 80 years[6]. In our study out of 5 patients of endometrial carcinoma 3 were > 65 years of age.

Nulliparity associated with anovulation is considered a risk factor for endometrial cancer. The parity in our patients with endometrial cancer ranged between 2-10 and there was no nulliparous woman with endometrial cancer. A reduction in risk (of borderline significance) is observed in parous women but there is no evidence for the risk to decline with increasing number of births[7].

Diabetes, obesity and hypertension are common medical illnesses in patients with postmenopausal bleeding. These are risk factors for endometrial cancer.

In one study the odds ratio form endometrial malignancy was 9.1 for women over 70 years, 37 for women with diabetes and 2.7 for nulliparous women[9].

In this study, 4 patients with endometrial carcinoma were hypertensive and 2 patients were obese and only one patient was diabetic. Some patients were having more than one medical illness.

On the basis of clinical information obtained on history and physical examination, diagnosis can be made in a few cases. In most of the cases diagnosis requires aid of investigations. Until recently, fractional curettage under general anesthesia has been advocated as the investigation of choice for women with postmenopausal bleeding.[5,10] Ultrasound scan has an important role in the evaluation of patient with postmenopausal bleeding by measuring the endometrial thickness and adenxal masses.

The best evidence recently available suggests that full double thickness measurements which include the contents of the cavity should be made using a transvaginal probe[11].

In our study with cut off level of 5mm, 38% patients showed endometrial thickness of 5mm or less and finding was mainly in patients with atrophic endometrium. Patients having endometrial thickness more than 5mm were 46% and were of malignancy, hyperplasia and of young age group. In a study by Nasli and Coast in 1989, where they compared the ultrasound findings and endometrial pathology in postmenopausal women found that sensitivity of ultrasound to diagnose endometrial pathology was 91% and all endometrial carcinoma, hyperplasia and pyometrias were diagnosed. In this study finding of endometrium greater than 5mm in thickness was highly suggestive of underlying pathology[12].

The probability of cancer is extremely low if a clear symmetrical endometrial strip measuring less than 4mm in thickness is seen in ultrasound particularly in the context of an isolated episode of postmenopausal bleeding. If endometrial thickness is >5mm then endometrial biopsy is indicated. Our study also support this reference[13].

Gredmark et al found that 8 out of 457 women who presented with abnormal postmenopausal vaginal bleeding had ovarian tumour. As many ovarian cancer cannot be palpated on bimanual examination so ultrasonography provides the opportunity to examine whole pelvis[14].

Pap smear has an important role in the evaluation of the patients with postmenopausal bleeding, some argue that abnormal uterine bleeding in a menopausal women is a clinical indication for cervical cytology, irrespective of when last performed. Endometrial carcinoma may be detected by cervical cytology up to 30% of cases. In our

study Pap smear showed malignant changes in only two cases.

Hysteroscopy and endometrial sampling is the standard method for diagnosis but in our hospital the endometrial tissue for histopathology was collected by dilatation and curettage under general anaesthesia in 50% of cases. 26% patients directly underwent hysterectomy because they were not willing to have two separate procedures, and clinically they were diagnosed as having benign cause. 6% patients have laparotomy and biopsy as they were diagnosed as case of ovarian tumour on ultrasonography.

In our study 14% patients were confirmed as having cervical carcinoma on histopathology after cervical biopsy. The most common malignant non-endometrial cause of postmenopausal bleeding is carcinoma of cervix with reported incidence in women with postmenopausal bleeding of 0.8-13%[6,15,16]. Recent reports suggests that the incidence of endometrial carcinoma to be 1.5-28% with an average of 11%[6,12] In our study incidence of endometrial carcinoma was 10%. Out of 50 patients, 3 patients were having ovarian carcinoma. So a total of 15 patients i.e. 30% were having malignant cause of postmenopausal bleeding and 35 patients (70%) were having benign cause. Payne et al found benign or non-neoplastic causes for postmenopausal bleeding in 66% of women[15].

In the study of Gredmark, endometrial histopathology showed atrophy 50%, proliferation 4% secretary 1%, polyp 9%, different degree of hyperplasia 10%, adenocarcinoma 8%, non representative 14% and other disorders 3%. In our study atrophic endometrium was just in 30%, proliferation 12%. Secretary in 6%, polyp in 12%, simple hyperplasia in 2%. Other disorders 4% out of all the 70% benign cause of post menopausal bleeding, while 4% samples were insufficient. These findings differ from the findings conducted by Shamsa Akhtar in 1996, who found 26.36% cases of different types of hyperplasia, 19.46% cases with carcinoma of endometrium, 15.27% with carcinoma of cervix, 13.89% cases with inadequate sample and 9.72% with atrophic endometrium[17].

In this study treatment of postmenopausal bleeding was according to the cause.

CONCLUSION

This study has the following conclusive findings..

1. Majority of cases i.e. 70% were having benign cause.
2. Malignancy was very important cause of postmenopausal bleeding. It constitutes 30% of cases.
3. More patients of malignant disease were of carcinoma cervix i.e. 14% as compared to carcinoma endometrium which was 10%
4. Suspicion of endometrial carcinoma increases if postmenopausal bleeding is associated with other cofactors like medical illness (hypertension, diabetes, obesity).
5. Ultrasonography, Pap smear and endometrial biopsy are essential to diagnose cause of postmenopausal bleeding.

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