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A study on clino pathological study of postmenopausal bleeding

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Abstract

Background: Postmenopausal bleeding (PMB) requires a complete assessment to ensure the absence of malignancy and to identify and treat high-risk patients such as those with endometrial hyperplasia.

Objective: To enumerate the age predilection, histopathological diagnosis, incidence of malignancies, and management of postmenopausal bleeding.

Study Design: This is a prospective study done in the Department of Obstetrics Gynaecology - at a tertiary care center.

Results: A total of 50 patients of PMB were included for study. In the present study, the age difference of postmenopausal bleeding varied from 40-61 years, most common were between the age 50-60 years. The maximum number of people attained menopause at the age of 41-45 years. In our study showed that the maximum number of patients have come with the complaints of postmenopausal bleeding between 5-15 years after menopause. Most of the study population were grand nullipara. A maximum number of patients attained menopause with sudden and cessation of periods (52%). The maximum number of the patient came with the complaint of blood-stained white discharge 40%. In the present study, a cytological study showed the maximum number of patients had an inflammatory pattern of 46%. In the present study, fractional curettage samples on histopathological examination showed atrophic endometrium in the maximum number of patients i.e., 40%. In the present study, fractional curettage samples on histopathological examination showed atrophic endometrium in the maximum number of patients i.e., 40%. The incidence of benign conditions was 46% and the incidence of malignancy is 54%.

Conclusion: PMB is a sinister complaint. It requires a careful and timely assessment to eliminate the possibility of malignancy. The risk of endometrial malignancy increases with age. High cervical cancer preponderance stresses the need for education of patients regarding screening and early diagnosis.

Keywords: Postmenopausal, Cervical Cancer, Histopathology, Endometrium, Parity, Curettage.

Introduction

When uterine bleeding occurs more than 12 months after the regular menstrual period is defined as postmenopausal bleeding. To all the physicians and particularly gynaecologist the subject of uterine bleeding is a very important one, this is particularly so in the case of postmenopausal women.

Postmenopausal bleeding should alarm both the patient and the gynaecologist. All too frequently patients present with advanced and incurable lesions of the genital tract at the first visit because of illiteracy low socioeconomic status and unawareness of the consequences^[1, 2].

Menopause is a natural event and a part of the normal process of aging in women's life. Often the first sign is a shortening of the menstrual interval secondary to premature elevation in FSH, followed by intermittent periods of amenorrhea alternating with heavy bleeding consistent with oligovulation or no ovulation.

There is no fixed pattern to the onset of menopause in some women menstruation is ceased abruptly, while in others it is gradual in onset. It is the nature of bleeding or the amounts have neither any diagnostic value nor the interval between menopause and the onset of bleeding is of any importance. But frank bleeding or more staining from the genital tract after the cessation of the menstrual function should be viewed with suspicion until a diagnostic curettage of endometrium and biopsy of the cervix should be done and it would rule out the cause of bleeding^[3].

Hence the main objective of the present study is too early diagnosis and analyze the cause of postmenopausal bleeding and also study the various complications and early management.

Methods

Source of data

The data was collected from patients with postmenopausal bleeding per vaginum attending the outpatient department or admitted for evaluation under Obstetrics and Gynaecology Department, Dr. V.R.K Womens Medical College and hospital, Hyderabad from 1 st July 2017 to 1st July 2019.

Study design

This study was a prospective study of the patients with postmenopausal bleeding attending the outpatient department or admitted for evaluation under the Obstetrics and Gynaecology department at Dr. V.R.K Womens Medical College and hospital.

Data collection

Written and informed consent was taken from all the patients enrolled in the study. They were evaluated by history, clinical examination and investigations like transvaginal sonography, endometrial biopsy, fractional curettage, Papanicolau Smear and hysteroscopic guided biopsy if required were done for all subjects and the specimens collected were sent to the department of pathology for examination and reporting. Depending on the reports obtained, the data was recorded and analyzed by descriptive statistics using percentages.

Inclusion criteria

- All cases with the history postmenopausal bleeding were

admitted irrespective of the site of bleeding that is from the uterus, vagina or vulva, etc.

- Only those patients who had the duration of menopause greater than one year have been recorded.

Exclusion criteria

Only those cases who had attained natural menopause comprised the materials, omitting those who have attained menopause post operatively, for eg. After hysterectomy or those who have undergone irradiation for some other cause.

The numbers of Sample size were 50.

Age group

Postmenopausal women

Statistical analysis

Descriptive statistics were applied and data was analyzed by percentages.

Table 1: Age distribution

Age (in years)	No.of cases	Percentage
40-49	4	8%
50-60	42	84%
61 and above	4	8%

The age difference of postmenopausal bleeding varied from 40-61 years, most common was between the age 50-60 years.

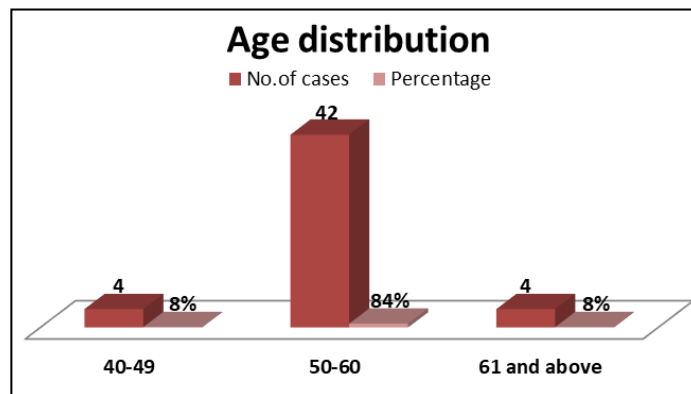


Fig 1: Age distribution

Table 2: Age concerning menopause

Age of patients (in years)	No. of cases	Percentage
39-40	3	6%
41-45	40	80%
46-50	7	14%

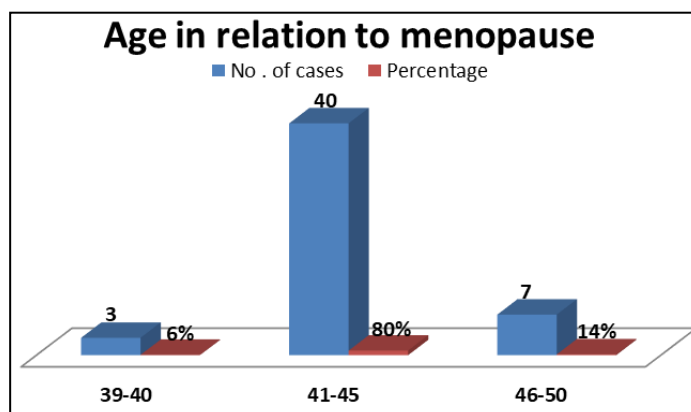


Fig 2: Age concerning menopause

In the present study, the maximum number of people attained menopause at the age of 41-45 years.

Table 3: Period of amenorrhoea preceding postmenopausal bleeding

Period of amenorrhoea	No. of cases	Percentage
<5	5	10%
5-9	12	24%
10-14	18	36%
15-19	11	22%
20-24	3	6%
25 & above	1	2%

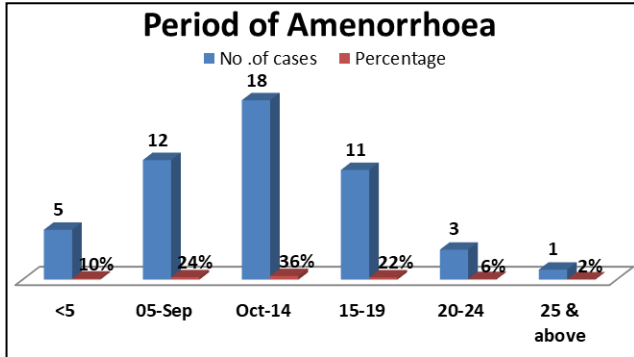


Fig 3: Period of amenorrhoea preceding postmenopausal bleeding

The present study, shown that the maximum number of patients have come with the complaints of postmenopausal bleeding between 5-15 years after menopause.

Table 4: Parity of Distribution

Parity	No. Of Cases	Percentage
Para 1&2	5	10%
Para 3&4	13	26%
Para 5 and above	32	64%

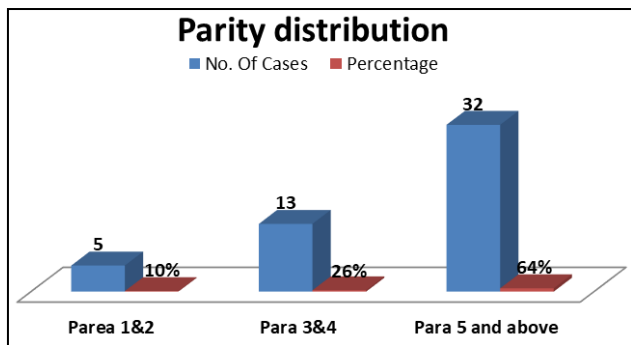


Fig 5: Parity of Distribution

Table 5: Characteristics of Cessation of Menses

Type of Cessation of periods	No. Of cases	Percentage
Sudden cessation of periods	26	52%
Gradual onset of menopause	12	24%
Menorrhagia before menopause	08	16%
Type of cessation could not be known	4	8%

The maximum number of patients attained menopause with sudden and cessation of periods.

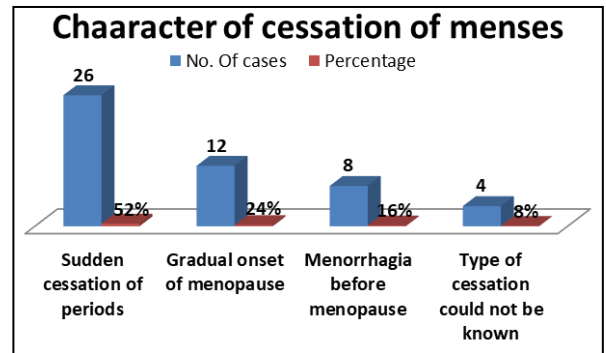


Fig 6: Characteristics of Cessation of Menses

Table 7: Type of abnormal bleeding

Type of bleeding	No. Of cases	Percentage
Frank bleeding	16	32%
Bloodstained white discharge	20	40%
Bloodstained white discharge with foul-smelling	14	28%

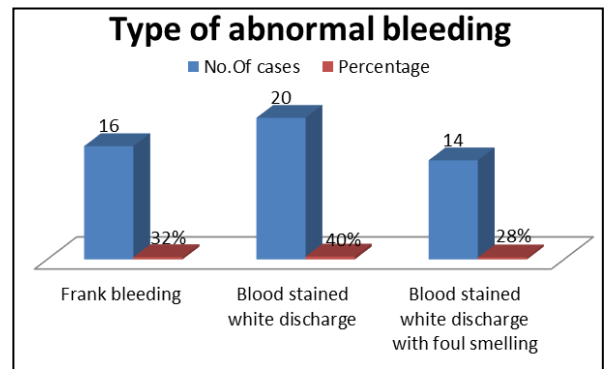


Fig 7: Type of abnormal bleeding

The maximum number of patients came with the complaint of blood-stained white discharge 40%.

Table 8: Cytological changes in 50 cases of postmenopausal bleeding

Papsmear report	No. Of Cases	Percentage
Inflammatory pattern	23	46%
Mild dysplasia (CINI)	1	2%
Moderate dysplasia (CIN II)	1	2%
Severe dysplasia (CINIII)	22	44%
Sq. Cell ca	3	6%

In the present study, a cytological study showed the maximum number of patients had an inflammatory pattern of 46%.

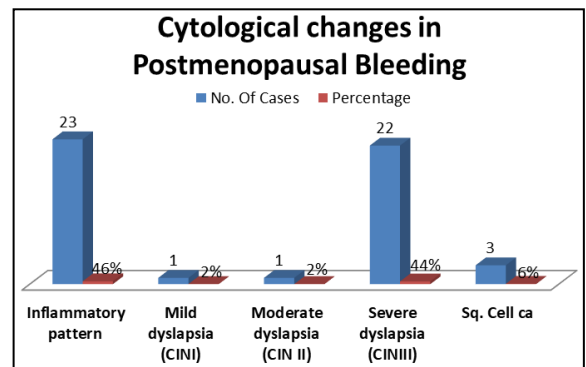


Fig 8: Cytological changes

Table 9: Histopathological changes in the cervical biopsy taken in 50 cases of postmenopausal bleeding.

Cervical biopsy	No. Of cases	Percentage
Chronic Cervicitis	22	44%
Sq. Cell carcinoma	23	46%
Cervical dysplasia	2	4%
Carcinoma in situ	3	6%

Histopathologically cervical biopsy report showed sq. Cell carcinoma in the large number of cases 46%.

Table 10: Histopathological findings in the endometrium in 50 cases

Histopathological findings in endometrium	No. of cases
Atrophic endometrium	20
Proliferative phase	15
Tuberculosis endometritis	1
Adenocarcinoma endometrium	1
Inflammatory changes in endometrium	10
Hyperplasia of endometrium	3

In the present study, fractional curettage samples on the maximum number of patients i.e., 40%. histopathological examination showed atrophic endometrium in

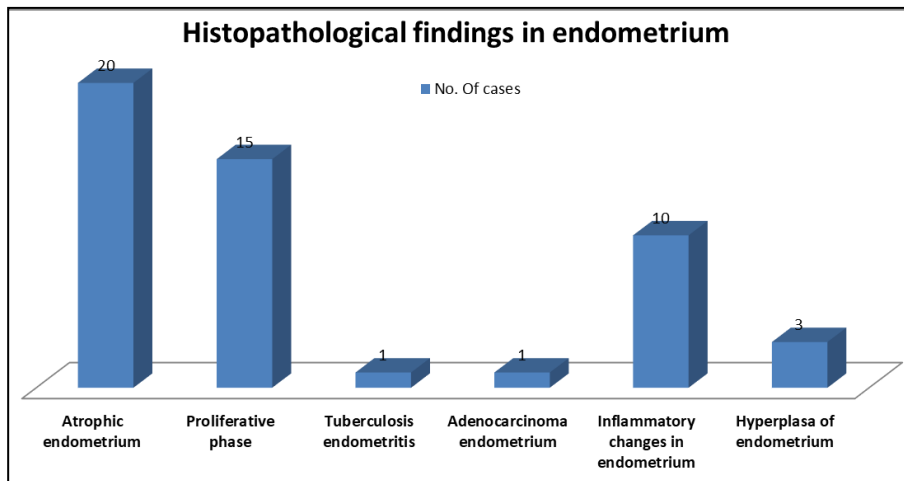


Fig 9: Histopathological findings in the endometrium in 50 cases.

Table 11: Clinical diagnosis versus histopathological diagnosis

Clinical diagnosis	Histopathological diagnosis	No. Of cases
Prolaps with Decubitus Ulcer	Atrophic endometrium with chronic cervicitis	9
	Tuberculous endometriosis	1
	Sq. cell carcinoma cervix	1
Fibroid uterus	Leioma	2
	Adenocarcinoma	1
Left out copper –T in the uterine cavity	Atrophic endometrium with non-specific cervicitis	1
Chronic cervicitis	Cervical dysplasia	2
	Non-specific cervicitis	4
	Ca inn situ	3
Carcinoma in cervix	Sq. cells carcinoma	20
Traumatic ulcer due to ring pessary in (in prolapsed case) vagina	Atrophic endometrium with nonspecific cervicitis and vaginitis	1
Senile vaginitis	Inflammatory pattern of the epithelium	3
Carcinoma of vagina	Sq. cell carcinoma	1
Carcinoma of vulva	Sq. cell carcinoma	1

In the present study, the incidence of benign conditions was 46% and the incidence of malignancy is 54%.

Discussion

Postmenopausal bleeding is a sinister complaint of postmenopausal women. It is common between 5-10yrs after reaching menopause and common age predilection is between 50-60 yrs. Beyond this age, endometrial malignancy is more

common. The peak incidence of malignancy was observed in the age group of 55-64 years. Postmenopausal bleeding has been evaluated by clinical examination, pelvic ultrasound, investigations like Pap smear & fractional curettage in this study.

The patients who came to gynaecological ward with the complaint of postmenopausal bleeding during the period of two years Jan 2017 to Jan 2019 were studied.

The maximum numbers of patients were between 50-60 years. The highest age recorded in 70 years. The age incidence ranged 40-49 years-8%, 50-60 years -84%, 61 and above 8%.

In the study made by Sengupta *et al.* [4] the age incidence varied from 50-70 years. The maximum numbers of patients were between 50-59 years. The incidence of age distribution in 50-59 years-80%, 60-69 years- 16% and above 4%.

The age of the present study correlated with previous findings made by Sengupta *et al.* [4]

Regarding studies about the age of menopause in the present study, women attained menopause between 39 and 50 years. The maximum number of women attained menopause between the age of 41-45 years. The incidence ranged as 39-40 years 6%, 41-45 years-80%, 46-50 years 14%. The age of menopause whether early or late does not have any significance on the occurrence of postmenopausal bleeding [5].

In the present study, parity of distribution most of the women was grand multipara with 9 and 10 children 64% of them had more than 5 children. Para 1 and 2 10%, Para 3 and 4 4-26%. In a study by Adamson *et al.*, stated that most of the patients were multiparous.

In the present study, the interval after menopause or the period of Amnorrhoea maximum number of women are between 10-14 years. Maximum interval after menopause in one patient in 25 years. Less than 5 years in 10%, 5-9 years in 24%, 10-14 years in 36%, 15-19 years in 22%, 20-24 years in 6%. The previous studies made by Sengupta *et al.*, maximum intervals after menopause was between 10-14 years-44%.

Coming to the character of cessation of menstruation all patients in this study attained natural menopause sudden cessation of menses in 26 patients, gradual onset of menopause in 12 patients, 8 patients had heavy flow before the cessation of menses. Because of illiteracy and low socioeconomic status 4 patients were unable to recollect or give any information regarding the type of cessation of menses. In this series there as not a single patient who had estrogen therapy previously, and there was no withdrawal of which caused postmenopausal bleeding.

In the study done by Isreal and Webber in 1956, the etiology of menopause were recorded as spontaneous menopause in 90.4%, by surgical procedures in 4.5% by radium in 3.8%, by X-ray therapy in 1.3%. Now the type of abnormal bleeding varied from blood-stained white discharge to profuse bleeding 32% of the patients was admitted with the history of frank bleeding per-vaginum. 40% of the patients were admitted with blood-stained white discharge, blood-stained white discharge, blood-stained white discharge with foul-smelling 28%. The patients with frank bleeding seek the medical advice immediately whereas the patients with blood-stained while discharge would neglect till it becomes worse with many complications.

Cytological changes in this study show the inflammatory pattern in 23 cases, mild dysplasia (CIN 1) in 1 case, moderate dysplasia 1 case severe dysplasia (CIN III) in 22 cases and sq.cell carcinoma in 3 cases.

In the study, done by Kashyap *et al.* [5] they studied 28 cases of postmenopausal bleeding. All the 28 cases were diagnosed cytologically as mild dysplasia in 10 cases, moderate (CIN II) dysplasia in 9 cases, carcinoma in situ no cases, and invasive carcinoma one case.

The cervical biopsy was taken in 50 cases out of the 22 cases were benign condition and 23 cases were sq.cell carcinoma and 2 cases with dysplasia and 3 cases carcinoma in situ.

In the series of Isreal and Webnar [6] studied 53 cervical biopsies, all one benign conditions. 37 of them were chronic

cervicitis and 16 had a cervical polyp.

In the study done by Khashyap *et al.* [5] they studied 28 cases of postmenopausal bleeding in their series 5 cases showed mild dysplasia, moderate dysplasia in 11 cases, severe dysplasia in 4 cases, carcinoma in situ 6 cases and invasive carcinoma in 2 cases.

Fractional curettage was done in 50 cases to rule out endometrial malignancy. In the present study, 20 cases had atrophic endometrium, 15 cases had proliferative phase, tuberculosis endometrium in 1 case, Adenocarcinoma of endometrium 1 case, an inflammatory pattern of endometrium in 10 cases, hyperplasia of endometrium 3 cases. One case of prolapsed with decubitus ulcer cervical biopsy and fractional curettage was done, the report showed as tuberculous endometrium.

In a study done by Lawrence *et al.* [7] on 104 cases of postmenopausal bleeding their study showed submucosal fibroids in 8 cases, proliferative endometrium 23 cases, polyp in 33 cases, hyperplasia in 4 cases, atrophic endometrium in 31 cases and cancer endometrium in 4 cases.

In the present series, the maximum number of patients had uterovaginal prolapsed with decubitus ulcer, most of the patients complained of blood-stained white discharge some time these prolapsed may be associated with carcinoma of the cervix or carcinoma of body of the uterus. One case in this series showed a prolapsed uterus with carcinoma of the cervix. All the other cases with prolapsed reported in this series were benign lesions [8, 9]

Coming to the malignant lesions causing postmenopausal bleeding in the malignant lesions the bleeding is mainly from the malignant tissue. In the present series, there were 23 cases of carcinoma cervix, 3 cases carcinoma of the cervix in situ. One case of carcinoma vulva and one case of carcinoma vagina. All the cases histopathologically showed as squamous cell carcinoma.

In a study done Bafina & Sashikala [11] have shown 26.5% malignant lesions. Out of them, 27 cases were with carcinoma of the endometrium. One case with the mixed mesodermal tumor, one case with sarcoma of the uterus. 24 cases with carcinoma of the cervix, 4 cases with carcinoma of the ovary, 1 case with carcinoma of the tube, 1 case with carcinoma of the vulva.

Coming to the benign and malignant condition in this series of postmenopausal bleeding. Benign conditions were 46% among them mostly cases of the prolapsed uterus with decubitus ulcer 11 cases, left out copper T in the uterine cavity in one case, senile vaginitis 3 cases, traumatic ulcer in vagina due to ring pessary to prevent prolapsed one case, cervical mild dysplasia 5 cases, and Leiomyoma 2 cases.

Malignant conditions in this series of postmenopausal bleeding were 54% among them adenocarcinoma of endometrium 1 case. The maximum number of cases were carcinoma cervix 23 cases histopathologically ruled out as squamous cell carcinoma. Carcinoma in situ 3 cases carcinoma of the vagina only one case was recorded. Biopsy from the site of ulcer in case of prolapsed with decubitus ulcer ruled out histopathologically as sq.cell carcinoma, one case of carcinoma vulva. No cases of ovarian malignancy were recorded [9, 10]

Our findings were similar to the previous studies made by Sengupta *et al.* [4]. The incidence of malignancy in their study is 49%. In the present study, the incidence of malignancy is 54%.

Conclusion

In the present study, 50 cases with a history of postmenopausal bleeding were studied. Causes of postmenopausal bleeding are studied by detailed history, cytological examination, cervical

biopsy, and fractional curettage. In the present study, carcinoma of the cervix comprised the largest number among the malignant lesions leading to postmenopausal bleeding. The largest group of patients with benign lesions had prolapsed uterus with decubitus ulcers. Finally, it says that frank bleeding or blood-stained white discharge from the genital tract after the cessation of the menstrual function should be viewed with suspicion until and unless malignancy is estimated as a cause of bleeding. Cytological screening should be done to all the postmenopausal women to reduce the incidence of malignancy.

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Conflict of Interest

None

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