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HISTOPATHOLOGICAL PROFILE OF THE ENDOMETRIUM IN PRE AND POSTMENOPAUSAL WOMEN WITH ABNORMAL UTERINE BLEEDING AT TERTIARY CARE CENTRE

Pathology

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ABSTRACT

Introduction Pre and postmenopausal bleeding is one of the commonest conditions for which patients seek advice in the gynaecological outpatient department. Endometrial biopsy is the gold standard for evaluating such cases. **Aims And Objectives** To determine various histological pattern of endometrium in pre and post-menopausal women and to study the spectrum of lesions of the endometrium with respect to age and clinical features. **Methods** This is a prospective study of the histopathology profile of the endometrium among 100 cases of premenopausal(45+/-5yrs)and postmenopausal (50 yrs and above)patients with AUB symptoms and D and C /endometrial biopsy/hysterectomy done in department of Obstetrics and Gynaecology,Patna Medical College and Hospital over a period of two years which was histopathologically examined in department of pathology,Patna Medical College and Hospital. **Results** Maximum incidence of AUB was found in 40-50 yrs age group(53%).Menorrhagia was the commonest bleeding pattern.on histopathological examination,proliferative endometrium constitutes 36% followed by atrophic endometrium (33%).In 40-50 yrs age group proliferative endometrium (49%) followed by secretory endometrium (23%),Atrophic endometrium (15%),hyperplasia without atypia (9%),Atypical Hyperplasia(4%).In >50 yrs ,Atrophic endometrium(53%),proliferative endometrium(21%),secretory endometrium(9%),chronic endometritis(9%),hyperplasia without atypia(2%),atypical hyperplasia(2%), endometrial carcinoma type I(2%),type II(2%). **Conclusion** Histopathological examination of the endometrium is an inexpensive and accurate method for diagnosis of such cases.It helps to differentiate benign and malignant causes and plan further line of management of the patient.

KEYWORDS

Premenopausal bleeding, Postmenopausal bleeding, Abnormal uterine bleeding

INTRODUCTION

Pre and postmenopausal bleeding is one of the commonest conditions for which patients seek advice in the gynaecological outpatient department. The prevalence increases with age, peaking just prior to menopause. Because most cases are associated with anovulatory menstrual cycles, perimenopausal women are particularly vulnerable. Throughout the perimenopausal transition, there is a significant incidence of DUB due to anovulation[1]. Perimenopause is the period 2-8 years preceding the menopause and 1 year after final menses (WHO).However a better definition is the phase preceding the onset of menopause, occurring around the age of pre and postmenopausal years (beginning at age 47.5, lasting for 4 years) during which the regular menstrual cycle of a woman transitions to a pattern of irregular cycles.[2] Pre and postmenopausal bleeding refers to the symptoms of excessive, unexpected, prolonged, or acyclic bleeding, regardless of the diagnosis or cause [3]. With medical advancements and the increasing awareness about gynaecological problems, most women gain access to most of the diagnostic and therapeutic modalities. Endometrial biopsy is relatively simple, accurate and inexpensive. The only disadvantage of the endometrial biopsy is that, it is an invasive procedure. The main reason for obtaining endometrial histology in Pre and postmenopausal patients with bleeding is to exclude the presence of endometrial hyperplasia or carcinoma of the endometrium[4] . In this study of 100 cases an attempt is made to evaluate the histomorphological profile of endometrium in pre and postmenopausal bleeding.

MATERIALS AND METHOD

This is a prospective study of histopathology profile of the endometrium among pre and post menopausal women with abnormal uterine bleeding conducted in the Department of Pathology, Patna Medical College and Hospital, Patna. A total of 100 patients in the premenopausal group(45+/-5yrs) and postmenopausal group(50yrs and above) with symptoms of abnormal uterine bleeding admitted in the inpatient wards of Department of Obstetrics and Gynaecology, Patna Medical College and Hospital, Patna whose samples are sent for histopathological examination in the Department of Pathology,Patna Medical College and Hospital are the subjects of this study.

samples of the endometrial tissue obtained by:

- dilatation and curettage
- endometrial biopsy
- hysterectomy

Preparation of tissue sample for microscopic examination by a series of processes. Processing of received biopsy specimen done by various steps of fixation, grossing, dehydration, clearing, embedding, sectioning, spreading, mounting and staining by H and E.Then observed under microscope.

RESULTS

During the study period,November 2017 to November 2019, total 287 cases of AUB was reported in Patna Medical College and Hospital ,of which 157 were pre and post menopausal AUB cases ,which constitutes 54.70 percent. Of the total cases ,first 100 cases were taken into consideration for this study.

Between the age group of 40-50 years 53 cases were observed and in >50 years 47 cases were observed.So the maximum incidence of pre and post menopausal bleeding cases were seen in 40-50 years age group.

41 presented with menorrhagia,30 with post menopausal bleeding,20 with metrorrhagia,7 with oligomenorrhoea, and 2 with polymenorrhoea. Majority of the cases presented with menorrhagia. Among the 100 bleeding cases,proliferative endometrium constitutes 36 cases,secretory endometrium constitutes 16 cases,atrophic endometrium constitutes 33cases,hyperplasia without atypia 6 cases,atypical hyperplasia 3 cases,endometrial carcinoma type I 1 case,endometrial carcinoma type II 1 case.Others causes like chronic endometritis 4 cases.

Table 1: Age Incidence of Pre And Post Menopausal Bleeding Cases

Age Group	No. of cases
40-50 years	53
>50 years	47

Table 2:distribution of Clinical Presentation In Pre And Post Menopausal Bleeding Cases

Clinical Presentation	No. of Cases
Menorrhagia	41
Metrorrhagia	20
Oligomenorrhoea	7
Polymenorrhoea	2
Post-menopausal bleeding	30

Table 3 :distribution of Endometrial Pattern In Pre And Post Menopausal Bleeding Cases

Type of endometrium	No. of Cases
Atrophic endometrium	33
Chronic endometritis	4

Proliferative endometrium	36
Secretory endometrium	16
Hyperplasia without atypia	6
Atypical hyperplasia	3
Endometrial carcinoma type I	1
Endometrial carcinoma type II	1

Table 4: Types of Hyperplasias

Type of endometrium	No. of cases	Percentage
Hyperplasia without atypia/ Non-atypical hyperplasia	6	67%
Atypical hyperplasia	3	33%
Total	9	100%

Table 5:Types of Carcinoma

Type of endometrium	No. of cases	Percentage
Endometrial carcinoma type I	1	50%
Endometrial carcinoma type II	1	50%
Total	2	100%

Table 6:Distribution of Endometrium Pattern In 40-50 Years Age Group

Type of endometrium	No. of cases	Percentage
Proliferative endometrium	26	49
Secretory endometrium	12	23
Hyperplasia without atypia	5	9
Atypical hyperplasia	2	4
Atrophic endometrium	8	15
Endometrial carcinoma type I	0	0
Endometrial carcinoma type II	0	0
Total	53	100

Table 7:Distribution of Endometrial Pattern In >50 Years Age Group

Type of endometrium	Cases	Percentage
Proliferative endometrium	10	21%
Secretory endometrium	4	9%
Hyperplasia without atypia	1	2%
Atypical hyperplasia	1	2%
Atrophic endometrium	25	53%
Endometrial carcinoma type I	1	2%
Endometrial carcinoma type II	1	2%
Chronic endometritis	4	9%
Total	47	100%

DISCUSSION

In the current study, the incidence of AUB in pre and postmenopausal age group was 54.7%.. Muzaffar et al[5]and Baral R et al [6], reported an incidence of 48% and 46.66% respectively. Among the various patterns of endometrium observed, the number of cases of proliferative endometrium and its variants were higher (36%) in the present study in comparison to other studies of Shazia etal[7]and Layla et al[8].

In the study of Layla et al[8] secretory endometrium were 16%, and the study of Shazia et al[7] had an incidence of 26%. In the present study secretory endometrium constituted 16%. In the present study among the 9 cases of endometrial hyperplasias, hyperplasia without atypia was most common,with a total of 6 cases (67%) similar to the study of AmeraTakreem et al [9], who observed 66.6% of simple hyperplasia without atypia in 100 pre and postmenopausal bleeding patients. In our study, 3 cases were Atypical hyperplasia. The present study also revealed maximum number of cases of endometrial hyperplasia in the age group of 40-50 years.

Lyla et al[8] observed that the incidence of endometrial carcinoma in pre and postmenopausal age group was 1.5%. 2 cases(2%) of endometrial adenocarcinoma were observed in the present study. In the study of Baral R et al[6] the incidence of chronic endometritis was (2.7%) which was equally distributed in reproductive age group and in pre and postmenopausal age.In our study, 4 % of chronic endometritis were observed.

Table 8: Patterns of Endometrium

Histopathological Diagnosis	Shazia et al(2010)7	Layla et al(2011)8	Current Study(current)
Proliferative endometrium	24%	15.4%	36%
Secretory endometrium	26%	16.6%	16%
Simple(cystic) hyperplasia	25%	10.5%	6%
Complex hyperplasia without atypia	1%	1.8%	
Complex atypical hyperplasia	1%	0.54%	3%
Malignancy	0%	1.5%	2%

CONCLUSION

The present study revealed that the incidence of AUB in our institution during the study period is 287 among which, pre and postmenopausal bleeding cases constituted 54.70%.

The distribution of cases of pre and postmenopausal bleeding was maximum in the age group of 40-50 years(53%) compared to >50 years(47%).

The most common histological pattern of endometrium observed was proliferative endometrium (36%).Hyperplasias, were more distributed in 40-50yrs age group.

Endometrial carcinoma type I and type II were 1% each. Endometrial carcinoma was found in >50years.

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