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HISTOPATHOLOGICAL SPECTRUM OF ENDOMETRIAL LESIONS IN ABNORMAL UTERINE BLEEDING

Pathology

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ABSTRACT

Abnormal uterine bleeding (AUB) is the most prevalent gynecologic concern among women, characterized by deviations in menstrual frequency, duration, or volume. For patients experiencing AUB, the initial diagnostic step is to perform endometrial sampling and histopathological evaluation. This study sought to assess the various histopathological findings in endometrial tissue from women with AUB and to identify the most common histopathologic patterns across different age groups Out of 90 cases The peak incidence is observed in the age group of 41-50 years (42.2%), 39 cases were Normal Cyclical Endometrium - predominant histomorphological pattern, 25 cases were Endometrial Hyperplasia without atypia 06 cases were Endometrial Carcinoma

KEYWORDS

atypical endometrial hyperplasia, endometrial hyperplasia, endometrial carcinoma, endometrial sampling, abnormal uterine bleeding

INTRODUCTION

Abnormal uterine bleeding (AUB) is a common gynecological issue affecting women across all age groups. It refers to any deviation in the frequency, duration, or volume of menstrual bleeding from the normal pattern. AUB can manifest as heavy, frequent, irregular, post-coital, or postmenopausal bleeding, and it significantly impacts quality of life. Its causes range from hormonal imbalances to serious conditions like malignancy.[1]

To categorize these causes, the FIGO introduced the PALM-COEIN classification: PALM includes structural causes (polyps, adenomyosis, leiomyoma, malignancy), while COEIN includes non-structural factors (coagulation disorders, ovulatory issues, endometrial causes, iatrogenic factors, and unclassified conditions).[2] Endometrial biopsy is a key diagnostic tool, especially recommended for women over 45 or younger women with risk factors or persistent symptoms.[3] This study aims to assess the histopathological patterns of the endometrial lesions in women with AUB.

Aim:

To study the spectrum of endometrial lesions in women with AUB and to correlate with different age groups

MATERIALS AND METHODS:

Study Design: The present study was carried out at histopathological section of Pathology Department of Assam Medical College and Hospital, Dibrugarh, a tertiary care center during the period of September, 2023 to August 2024

Type Of Study: a one year retrospective study

Data Collection Procedure: The study included endometrial samples of 90 patients who had been advised for endometrial sampling for non-gestational causes. Endometrial curettage done in the case of AUB due to gestational causes like incomplete abortion, missed abortion and retained products of conception was excluded from the study. All endometrial biopsies from patients with AUB not due to gestational causes were included in the study.

The relevant clinical details like age, presenting complaints, and menstrual details including last menstrual period, periodicity, and regularity were collected from the case records of patients. Hematoxylin and eosin stained slides were examined thoroughly and the findings were recorded.

RESULTS:

- The peak incidence is observed in the age group of **41-50** years **(42.2%)**
- **39** cases were **Normal Cyclical Endometrium -** predominant histomorphological pattern
- **25** cases were **Endometrial Hyperplasia without atypia**
- **06** cases were **Endometrial Carcinoma**

Table 1: Age Wise Distribution Of Endometrial Sampling In Aub

Age	No. of cases	Percentage
<= 20	1	1.1%
21-30	13	17.7%
31-40	22	24.4%
41-50	38	42.4%
51-60	11	10%
>60	5	4.4%
Total	90	100%

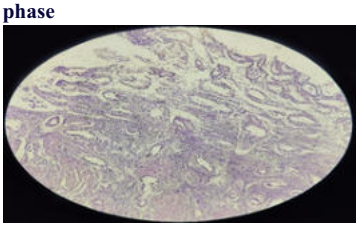
Table 2: Distribution Of Histomorphological Pattern Of Endometrium

Histomorphological pattern	No. of cases	Percentage
Proliferative Endometrium	32	35.4%
Secretory Endometrium	07	7.7%
Disordered Proliferative Endometrium	06	6.6%
Atrophic endometrium	05	5.5%
Polyp	04	4.4%
Endometrial hyperplasia without atypia	25	27.7%
Endometrial Hyperplasia with atypia	02	2.2%
Endometrial Carcinoma	06	6.6%
Chronic Endometritis	03	3.3%
Total	90	100%

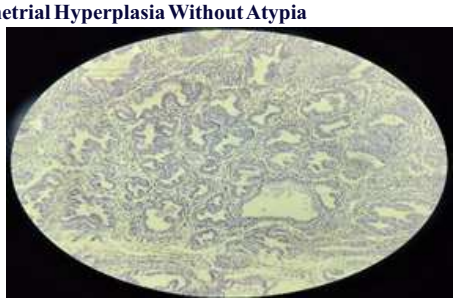
Table 3: Age Wise Distribution Of Histomorphological Patterns Of Endometrium

Histomorphological pattern	Reproductive (18-40 years)	Perimenopausal (41-50 years)	Postmenopausal (> 50 years)
Proliferative Endometrium	17	13	02
Secretory Endometrium	04	03	-
Disordered Proliferative Endometrium	01	03	02
Atrophic endometrium	-	02	03
Polyp	01	03	-
Endometrial hyperplasia without atypia	11	10	04
Endometrial Hyperplasia with atypia	-	01	01
Endometrial Carcinoma	-	02	04
Chronic Endometritis	02	01	-
Total	36	38	16

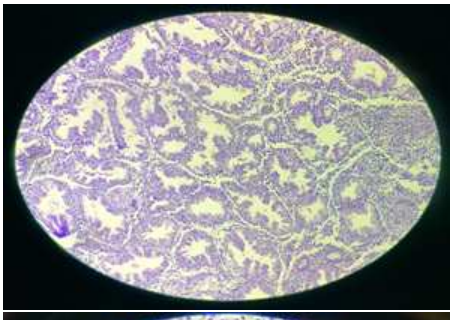
Normal Cyclical Endometrium
Proliferative phase

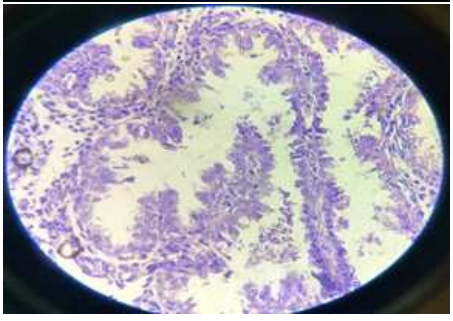


Endometrial Hyperplasia Without Atypia

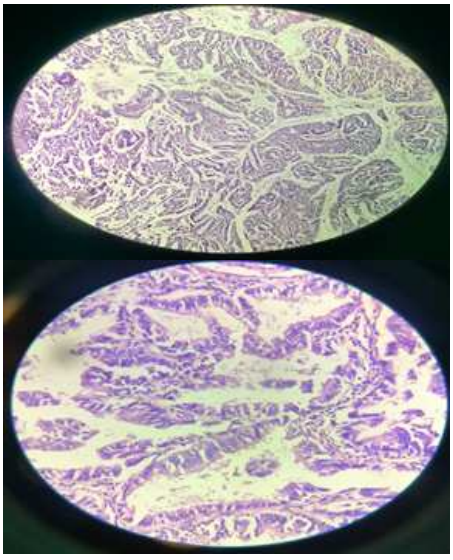


Endometrial Hyperplasia With Atypia

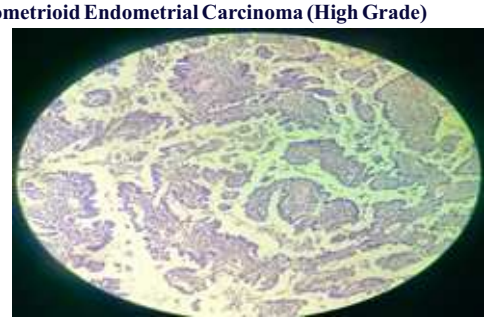


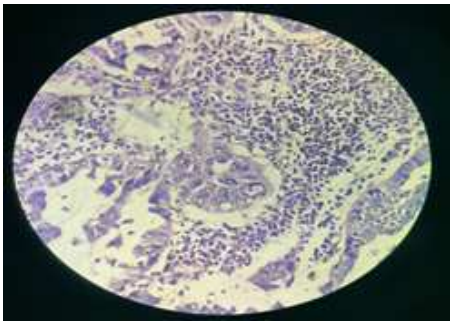


Endometrioid Endometrial Carcinoma (Low Grade)

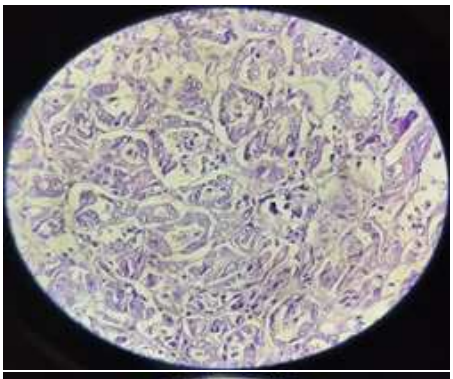


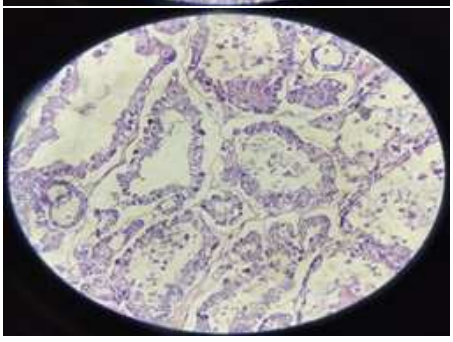
Endometrioid Endometrial Carcinoma (High Grade)





Clear Cell Carcinoma





DISCUSSION

A detailed analysis of the different endometrial patterns was done in this study with respective to age. The incidence of AUB was found to be highest among the perimenopausal age group (41-50 years).

Distribution Of Cases In Various Age Group In Different Studies In Comparison With Present Study

AGE	Prathipaa R et al.[4]	Mune SB et al[5]	Present Study
<=20	1	-	01
21-30	24	08	13
31-40	90	79	22
41-50	108	89	38
>5O	33	36	16
TOTAL	256	212	90

Distribution Of Different Histomorphological Patterns Of Endometrium In Comparison To Present Study

Histomorphology	Mune SB et al[5]	Prathipaa R et al[4]	Present Study
Proliferative Endometrium	59 (27.8%)	129 (50.39%)	32(35.5%)
Secretory endometrium	13(6.1%)	33 (12.89%)	07(7.7%)
Deficient secretory phase	7(3.3%)	-	-
Disordered proliferative endometrium	29(13.7%)	08(3.13%)	06(6.6%)
Atrophic endometrium	28(13.2%)	03(1.17%)	05(5.5%)
Polyp	17(8%)	06(2.34%)	04 (4.4%)
Endometrial hyperplasia without atypia	43(20.2%)	54(21.09%)	25 (27.7%)
Endometrial hyperplasia with atypia	4(1.8%)	06(2.34%)	04 (4.4%)
Endometrial carcinoma	5(2.3%)	01(0.39%)	06 (6.6%)
Chronic Endometritis	5(2.3%)	13(5.08%)	03(3.3)

Endometrial stromal nodule	1(0.5%)	-	-
PILL Endometrium	-	03(5.08%)	-
TOTAL	212	256	90

CONCLUSION

- In the present study, we found that women in the perimenopausal age group were the most common to present with AUB
- AUB significantly affects the quality life of women and results in anemia.
- Endometrial sampling should be considered in perimenopausal and postmenopausal age group and in reproductive age group not responding to medical treatment.
- Hence histopathological examination plays a critical role in early diagnosis of endometrial pathology and to provide appropriate gynaecological management.

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