

STUDY OF ENDOMETRIAL PATHOLOGY IN ABNORMAL UTERINE BLEEDING

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ABSTRACT

Objective: Endometrial pathology is becoming the most common issue that affects women of reproductive age group worldwide. AUB encompasses a wide variety of presentations, for example, frequent menstrual cycles, frequent and heavy cyclical bleeding, irregular bleeding, and postcoital bleeding. This study was done to evaluate the endometrial causes of AUB and to determine the specific pathology in different age groups.

Methods: This study was a prospective cross-sectional study conducted on 200 patients from January 2023 to October 2023 in the department of pathology in a reputed teaching hospital and research centre. All the endometrial biopsies/curretages and hysterectomy specimens sent for Histopathological examination with history of AUB were included in the study.

Results: Age of the patients with AUB ranged from 17 to 71 y in our study. Out of 200 cases, 90 cases (45%) were seen in Perimenopausal group followed by 68 cases (34 %) in Reproductive age group and 42 cases (21%) in Postmenopausal age group. Menorrhagia was the most common bleeding pattern seen in 54% pf patient with AUB. In 28% in reproductive age group, hormonal imbalance was observed in 13% of reproductive age group and 6% in perimenopausal age group. Atrophic endometrium was observed in 7.5% of women in post-menopausal age group. Chronic endometritis was seen 3% of reproductive age group.

Conclusion: Abnormal uterine bleeding in women belonging to different age group show variable endometrial pattern on histopathological examination. They are valuable in early detection of pre-cancerous endometrial lesions as well as malignancy.

Keywords: Abnormal utrine bleeding, Endometrial hyperplasia, Endometrial pathology

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INTRODUCTION

Endometrial pathology is becoming the most common issue that affects women of reproductive age group worldwide [1]. In developing countries, abnormal uterine bleeding is the most common type of endometrial disease [2]. Abnormal uterine bleeding (AUB) is one of the most frequent complaints for which a woman reports to the gynecologist. AUB encompasses a wide variety of presentations, for example, frequent menstrual cycles, frequent and heavy cyclical bleeding, irregular bleeding, and postcoital bleeding [3]. AUB is due to several factors deranging homeostasis like hormonal imbalances, infections, structural lesions and malignancies [4]. As the incidence of Endometrial cancers are increasing worldwide, it is important to rule out Endometrial cancer in these women. For investigation, USG is mostly the first investigation done for evaluation. Endometrial biopsy is used as a diagnostic tool in AUB patients. It is a safe and first line test done in women of >45 y of age presenting with AUB. It is done in women of <45 y of age, with a history of unopposed oestrogen exposure, failed medical management and persistent AUB as they are at greater risk for precursor lesions like hyperplasia and malignancy [5]. Although the gold standard is hysteroscopy and directed biopsy, it is too invasive requiring anaesthesia and is also time taking [3].

Early evaluation in the perimenopausal and postmenopausal women is essential to confirm the exact nature of the lesion and to rule out malignancy, thereby improving the quality of life in these women. This study was done to evaluate the endometrial causes of AUB and to determine the specific pathology in different age groups.

MATERIALS AND METHODS

This study was a prospective cross-sectional study conducted on 200 patients from January 2023 to October 2023 in the department of pathology in a reputed teaching hospital and research centre. All the endometrial biopsies/curretages and hysterectomy specimens sent for Histopathological examination with a history of AUB were included in the study. Patients of known or suspected malignancy (cervical, endometrial, ovarian), patients on hormone replacement therapy for menopausal symptoms, Patients who refused for further investigation, diagnosis of uterine or cervical polyp on sonography were excluded from this study. Patients undergoing endometrial evaluation for infertility workup, suspected to be having pregnancy-related problems or pyometra or hematometra, were also excluded from the study. The relevant clinical documents were collected. Histological features of all the cases were studied using Haematoxylin and Eosin stained sections. The various histomorphological patterns were studied and classified. Statistical analysis was done using SPSS software version.

RESULTS

A total of 200 patients were enrolled in this study. Age of the patients with AUB ranged from 17 to 71 y in our study. Based on the patients age, data was categorized in to 3 groups: Reproductive, Perimenopausal and Postmenopausal. Out of 200 cases, 90 cases (45%) were seen in Perimenopausal group followed by 68 cases (34 %) in Reproductive age group and 42 cases (21%) in the Postmenopausal age group as seen in table 1. Majority of the cases of AUB were seen among multiparous women (57.8%).

Table 1: Reproductive age

S. No.	Age	N (%)
1.	Reproductive (<40 y)	90(45%)
2.	Perimenopausal (41-50y)	68(34%)
3.	Postmenopausal (>50y)	42(21%)
	Total	200

Menorrhagia was the most common bleeding pattern seen in 54% pf patient with AUB, complaints of ologomenorrhoea was seen in 12.5% of patients and polymenorrhoea was seen in 14.5% of patients. As seen in table 2

Table 2: Presenting complaints

S. No.	Presenting complaints	N (%)
1.	Menorrhagia	108(54%)
2.	Oligomenorrhoea	25(12.5%)
3.	Polymenorrhoea	29(14.5%)
4.	Post coital bleeding	12(6%)
5.	Post menopausal bleeding	26(13%)
	Total	200

It was observed histopathological examination that normal menstrual pattern was observed in 28% in the reproductive age group, hormonal imbalance was observed in 13% of reproductive age group and 6% in perimenopausal age group. Atrophic

endometrium was observed in 7.5% of women in post-menopausal age group. Chronic endometritis was seen 3% of the reproductive age group. Endometrial hyperplasia and endometrial carcinoma was seen in 4% and 4.5% in postmenopausal women as seen in table 3.

Table 3: Endometrial pathology

S. No.	Endometrial pathology	Reproductive	Perimenopausal	Postmenopausal	Total
1.	Normal menstrual pattern	56(28%)	26(13%)	-	82
2.	Hormonal imbalance and pill effect	26(13%)	12(6%)	5(2.5%)	43
3.	Atrophic endometrium	-	-	15(7.5%)	15
4.	Chronic endometritis	6(3%)	7(3.5%)	-	13
5.	Endometrial polyp	5(2.5%)	8(4%)	-	13
6.	Endometrial hyperplasia	-	9(4.5%)	8(4%)	17
7.	Endometrial carcinoma	-	-	9(4.5%)	9
8.	Gestational products	8(4%)	-	-	8
	Total				200

DISCUSSION

Uterine bleeding presents as the most common symptom that confronts gynecologists and poses a considerable health risk. AUB is excessive, erratic, or irregular bleeding usually associated either with hormonal disturbance or intrauterine pathology [6]. The term abnormal uterine bleeding has been used to describe any bleeding not fulfilling the criteria of normal menstrual bleeding. The causes of abnormal uterine bleeding include a wide spectrum of diseases of the reproductive system and non-gynecologic causes as well. Organic cause of abnormal uterine bleeding may be subclassified into reproductive tract disease, iatrogenic causes and systemic disease. When an organic cause of AUB cannot be found, then by exclusion, a diagnosis of abnormal uterine bleeding (AUB) is assumed. In about 25% of the patients, the abnormal uterine bleeding is the result of a well-defined organic abnormality [7]. Authors conducted a clinicopathological study to assess the underlying cause of AUB in patients who had visited this hospital for treatment purpose.

The most likely etiology of AUB relates to the patient's age as to whether the patient is premenopausal, perimenopausal or postmenopausal [8]. The youngest patient in our study was a 17 year old girl and the oldest was a 71 year old lady. The prevalence of a primary coagulation disorder in adolescent requiring hospitalization ranges from 3 to 20%; hence all adolescents with menorrhagia should undergo evaluation for coagulopathy [9].

Earlier studies have demonstrated that without treatment, about 10-20% of endometrial hyperplasias may advance to malignancy. It is, therefore essential for all women age over 35 years to undergo endometrial screening for early detection and treatment of malignancy.

Author observed that menorrhagia was most common symptoms 54% presenting in OPD. Similar findings were observed in other studies like Singh P *et al.* [3]. 40%, Pidigundla, Deepthi *et al.* [10] 79%.

It was observed that atrophic endometrium was found in 7.5% of post-menopausal age group women, normal menstrual pattern was observed in 28% in reproductive age group, hormonal imbalance was observed in 13% of reproductive age group and 6% in perimenopausal age group. Chronic endometritis was seen 3% of reproductive age group. Endometrial hyperplasia and endometrial carcinoma was seen in 4% and 4.5% in postmenopausal women. Similarly chronic endometritis was seen in 6.9% in Singh P *et al.* [3]. Endometrial hyperplasia is a precursor of endometrial cancer. The

incidence of endometrial hyperplasia without and with atypia peaks in the early 50s and early 60s, respectively [11, 12]. Abnormal uterine bleeding in postmenopausal women requires further evaluation to exclude malignancies.

CONCLUSION

Abnormal uterine bleeding in women belonging to different age groups show variable endometrial pattern on histopathological examination. They are valuable in early detection of pre-cancerous endometrial lesions as well as malignancy, especially in the perimenopausal and postmenopausal age groups (>40y). Additionally, they are relatively safe, cost-effective and simple procedures.

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Nil

AUTHORS CONTRIBUTIONS

All authors have contributed equally

CONFLICT OF INTERESTS

Declared none

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