



Original Article

Endometrial pattern in women with abnormal uterine bleeding attending a tertiary care center in Kathmandu

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Keywords:

Abnormal uterine bleeding; Curettage; Endometrium; Hyperplasia; Carcinoma

ABSTRACT

Background: Abnormal uterine bleeding is one of the most common problems among pre and postmenopausal women. Abnormal uterine bleeding is diagnosed when there is a substantial change in frequency, duration, or amount of bleeding during or between periods without any organic pathology. The study assessed the endometrial causes of abnormal uterine bleeding and their incidence in different age groups.

Materials and methods: A cross-sectional and descriptive study carried out at Manmohan Medical College & hospital, over two years from 13th April 2020 to 15th March 2022. In the study, all endometrial tissue either obtained by endometrial curettage and biopsy or hysterectomy presenting with abnormal uterine bleeding for more than 3 months were included.

Results: A total of 88 cases were received during this period, out of which there were 78 endometrial tissue samples and 10 hysterectomy specimens. Age ranged from 20 years to 73 years. The pattern of endometrial biopsy is Proliferative (37.5%) and secretory (20.45%) phase endometrium is the most common pattern seen, followed by disordered proliferative endometrium (13.63%), endometrial hyperplasia without atypia (9.09%), Change c/w Exogenous Hormone (5.68%), Chronic Endometritis (5.68%), Endometrial Polyp (3.40%), Endometrial Hyperplasia with Atypia (2.27%) and Endometrial Carcinoma (2.27%).

Conclusions: Patients with abnormal uterine bleeding show a varying spectrum of endometrial patterns. Cyclic endometrium is commonly seen in the reproductive age group whereas hyperplasia and carcinomas are seen in pre/postmenopausal age groups. Endometrial biopsy with histopathological examination is a major diagnostic tool in the evaluation of abnormal uterine bleeding.

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INTRODUCTION

Abnormal uterine bleeding (AUB) is the most common presenting symptom, which has significant morbidity and interferes with personal, family, social, and sexual life.¹ AUB is defined as abnormal bleeding from the uterine corpus in terms of duration, volume, frequency, and/or regularity. AUB accounts for half of the gynecologic problems among adolescents.² Abnormal uterine bleeding (AUB) among women has a global prevalence of between 3–30% accounting for about one-third of outpatient gynecology visits.³

In premenopausal women, AUB is diagnosed when there is a substantial change in frequency, duration, or amount of bleeding during or between periods. In postmenopausal women, any vaginal bleeding 1 year after cessation of menses is considered abnormal and requires evaluation.⁴

Menstrual abnormality can be the cause of discomfort, inconvenience, and disruption of healthy social and physical lifestyles among millions of women worldwide. Menstrual problems are common in adolescents with many suffering from unpredictable, prolonged, or heavy bleeding that may present as a medical emergency.⁵ “Dysfunctional uterine bleeding”, refers to AUB which is not caused by structural lesions of the uterus.⁶ Dysfunctional uterine bleeding (DUB), defined as abnormal uterine bleeding not caused by pelvic pathology, medications, systemic disease, or pregnancy, is the most common cause of abnormal uterine bleeding but remains a diagnosis of exclusion.⁷

FIGO defines the etiology of AUB using the PALM-COEIN classification (Polyp, Adenomyosis, Leiomyoma, Malignancy, Hyperplasia (structural causes); Coagulopathy, Ovulatory dysfunction, Endometrial, Iatrogenic and Not yet classified (non-structural causes)] system.² Endometrial sampling is the gold standard for the evaluation of endometrial neoplasias, hyperplasias, metaplasias, pill-induced and functional endometrial abnormalities.⁸

MATERIALS AND METHODS

It was a cross-sectional and descriptive study carried out at Manmohan Medical College & Hospital, over two years from 13th April 2020 to 15th March 2022. In the study, all the endometrial tissue, either obtained by endometrial curettage and biopsy or hysterectomy of patients presenting with abnormal uterine bleeding for more than three months were included. Abnormal uterine bleeding due to gestational causes like abortions, tubal pregnancies, molar pregnancies, leiomyoma, cervical, vaginal pathology, etc., and inadequate endometrial samples were excluded from the study.

Samples were received in 10% formalin and preparation of tissue samples for microscopic examination was done by a series of processes, (fixation, dehydration, clearing, embedding, cutting) and staining of the tissue sections with hematoxylin and eosin stain and light microscopy technique was used for diagnosis.

RESULTS

A total of 88 cases were received during this period, out of which there were 78 endometrial tissue samples and 10 hysterectomy specimens (fig. 1). The patients' age ranged from 20 years to 73 years. The age-wise distribution of the case is shown in (Table 1).

Nature of Sample

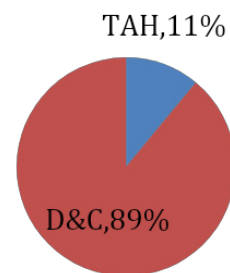


Figure 1: Pie chart showing the nature of the sample

The patient's age ranged from 20 years to 73 years. The age-wise distribution of the case is shown in (Table 1).

Table 1: Age-wise distribution of patients presenting with AUB.

Age group (years)	Frequency (%)
10-20	2(2.27%)
21-30	9(10.22%)
31-40	15(17.04%)
41-50	46(52.27%)
51-60	11(12.5%)
61-70	3(3.40%)
71-80	2(2.27%)

Out of 88 cases, 46 patients were in the perimenopausal age group (40-50 years) followed by 26 patients in the reproductive age group (<40 years) and 16 patients in the post-menopausal age group (>50 years).

Proliferative (37.5%) and secretory (20.45%) phase endometrium is the most common pattern seen in histopathology, followed by disordered proliferative endometrium (13.63%), endometrial hyperplasia without atypia (9.09%), Change c/w Exogenous Hormone (5.68%), Chronic Endometritis (5.68%), Endometrial Polyp(3.40%), Endometrial Hyperplasia with Atypia(2.27%) and Endometrial Carcinoma (2.27%), depicted in (Table 2).

Table 2: Histopathological findings among the study population.

Histopathological diagnosis	Frequency (%)
Proliferative phase	33 (37.5%)
Secretory phase	18 (20.45%)
Disordered Proliferative	12 (13.63%)
Endometrial Hyperplasia without atypia	8 (9.09%)
Change c/w Exogenous Hormone	5 (5.68%)
Chronic Endometritis	5 (5.68%)
Endometrial Polyp	3 (3.40%)
Endometrial Hyperplasia with Atypia	2 (2.27%)
Endometrial Carcinoma	2 (2.27%)

Cyclic endometrium is commonly seen in the reproductive age group whereas hyperplasia and carcinoma are seen in pre/post-menopausal age groups.

DISCUSSION

AUB is a special category of gynecological disorder that needs careful evaluation to know the cause of bleeding and formulate prospective management. Many of these bleeding patterns are transient and are the result of hormonal imbalance peculiar to this age group, and may not require active treatment. Abnormal uterine bleeding without structural pathology occurs in reproductive women of all ages but is more common in adolescent and perimenopausal women.⁸ Perimenopausal AUB was found to be at a very high prevalence of 54% in a study done by Gopalan and co-workers which is also found in our study showing a 52.27% prevalence.

The most common cause of abnormal uterine bleeding in this population is not retained products of conception in contrast to reports from India¹⁰ and at variance with studies by Khan et al.¹¹ Many publications have identified the relatively high incidence of retained products of conception in Nepal too but this study shows cyclical endometrium to be the common cause.

In the present study, the most common histopathological finding is proliferative endometrium similar to a study carried out by Bhatta et al.¹² in Nepal and studies elsewhere in the world. Cyclic endometrium is commonly seen in the reproductive age group whereas hyperplasia and carcinoma are seen in the pre/post-menopausal age group.¹³

The frequency of endometrial polyps was very low in other studies^{8,9,11,12} It can be attributed to the fact that proper screening methods for AUB and endometrial pathologies have been taking place in our country.

Postmenopausal bleeding is frequently associated with an atrophic endometrium. The thin atrophic endometrium is susceptible to minor injury leading to rupture of endometrial blood vessels that may be responsible for postmenopausal bleeding even in the absence of an identifiable lesion.¹⁴

CONCLUSIONS

Patients with AUB show a varying spectrum of endometrial patterns. Cyclic endometrium is commonly seen in the reproductive age group whereas hyperplasia and carcinomas are seen in pre/postmenopausal age groups. Endometrial biopsy with histopathological examination is a major

diagnostic tool in the evaluation of abnormal uterine bleeding.

Limitation: This study is limited to a single center which leads to a small population sample size. This study included limited participants as it was a hospital-based cross-sectional study which resulted in findings limited to a certain group and not the entire population. So the findings may not be generalized to the entire population.

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