

Analysis of Abnormal Uterine Bleeding in Endometrium of Perimenopausal Women: An Histopathological Study

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Abstract

Background: Abnormal uterine bleeding is one of the most common health problem encountered by women of perimenopausal age group. Hence; the present study was undertaken for assessing abnormal uterine bleeding in endometrium of perimenopausal women. **Subjects and Methods:** A total of 72 subjects were enrolled. Subjects with menstrual cycles of 21 to 35 days were enrolled. Subjects with duration of flow of 2 to 6 days were excluded from the present study, as they were considered as normal. Complete demographic details of all the subjects were obtained. Collection of the specimen was done for histopathologic assessment. **Results:** Abnormal uterine bleeding was clinical diagnosis in 30 patients, while it was pathologic diagnosis on 21 patients. Fibroid formation was clinical diagnosis in 20 patients, whereas on histopathologic examination, fibroid formation was found to be present in 15 patients. Proliferative phase was found to be present in 41.6 percent of the patients. Secretory phase was found to be present in 20.8 percent of the patients. Hyperplasia was found to be present in 26.4 percent of the patients. **Conclusion:** The most common cause of abnormal uterine bleeding in perimenopausal women are benign lesions of endometrium and myometrium.

Keywords: Bleeding, Endometrium, Perimenopausal.

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Introduction

Perimenopause refers to the period surrounding the last menstrual event. In the 21 st century, women are living major years of their lifetime in perimenopause state, constituting a large segment of the population. Abnormal uterine bleeding is the most common complaint encountered in these years causing significant physical and mental morbidity and financial burden on these patients.^[1-3]

Abnormal uterine bleeding is one of the most common health problem encountered by women of perimenopausal age group. It accounts for two-thirds of all hysterectomies worldwide, thereby a great cause of morbidity and mortality in this age group. It accounts for about 5-10% of cases in the outpatient clinic setting. About 20% of affected individuals are in the adolescent age group, and 50% of affected individuals are aged 40- 50 years.^[4] If the treatment is not instituted early, it can lead to severe anemia. If blood loss is acute, it can result in hypovolemic shock and the patient may collapse if the bleeding is too severe.^[5,6] Hence; the present study was undertaken for assessing abnormal uterine bleeding in endometrium of perimenopausal women.

Subjects and Methods

The present study was conducted in the Department of

Pathology, Government Medical College, Barmer, Rajasthan (India) and it included assessment of abnormal uterine bleeding in endometrium of perimenopausal women.

Ethical approval

Ethical approval was obtained from institutional ethical committee and written consent was obtained after explaining in detail the entire research protocol.

Sample size: 72 subjects

Methodology

Subjects with menstrual cycles of 21 to 35 days were enrolled. Subjects with duration of flow of 2 to 6 days were excluded from the present study, as they were considered as normal. Complete demographic details of all the subjects were obtained. Collection of the specimen was done for histopathologic assessment. All the results were recorded in Microsoft excel sheet and were analyzed by SPSS software.

Results

In the present study, majority of the patients belonged to the age group of 40 to 50 years. Mean age of the patients of the present study was 45.8 years. Mean weight of the patients of the present study was 69.8 Kg. In the present study, proliferative phase was found to be present in 41.6 percent

of the patients. Secretory phase was found to be present in 20.8 percent of the patients. Hyperplasia was found to be present in 26.4 percent of the patients. Abnormal uterine bleeding was clinical diagnosis in 30 patients, while it was pathologic diagnosis on 21 patients. Fibroid formation was clinical diagnosis in 20 patients, whereas on histopathologic examination, fibroid formation was found to be present in 15 patients.

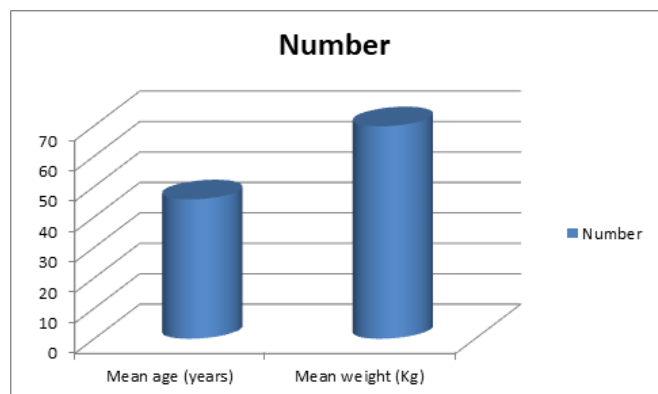


Figure 1: Age-wise distribution of patients

Table 1: Clinico-pathologic correlation

Diagnosis	Clinical diagnosis	Pathologic diagnosis
Dysfunction uterine bleeding	30	21
Fibroid	20	15
Carcinoma cervix	8	7
Carcinoma endometrium	3	7
Endometrial polyps	5	6
Adenomyosis	2	11
Infection	2	2
Others	2	3
Total	72	72

Table 2: Endometrial changes

Endometrial changes	Number of patients	Percentage of patients
Proliferative phase	30	41.6
Secretory phase	15	20.8
Hyperplasia	19	26.4
Malignant tumors	4	5.6
Infections	2	2.8
Polyps	2	2.8

Discussion

Abnormal uterine bleeding (AUB) is a symptom and not a disease. It is one of the most frequently encountered complaints in gynecologic practice. It accounts for more than 70% of all gynecological consultations in the peri- and post-menopausal age group. It occurs in various forms such as menorrhagia, polymenorrhea, polymenorrhagia, metrorrhagia, and menometrorrhagia. The International Federation of Gynaecology and Obstetrics in November 2010, accepted a new classification system for causes of AUB in the reproductive years. The system based on the acronym (polyps, adenomyosis, leiomyoma, malignancy and hyperplasia-coagulopathy, ovulatory disorders,

endometrial causes, iatrogenic, not classified) was developed in response to concerns about the design and interpretation of basic science and clinical investigation that relates to the problem of AUB.^[7,8] Hence; the present study was undertaken for assessing abnormal uterine bleeding in endometrium of perimenopausal women.

In the present study, majority of the patients belonged to the age group of 40 to 50 years. Mean age of the patients of the present study was 45.8 years. Mean weight of the patients of the present study was 69.8 Kg. Endometrial cancer most commonly presents with post-menopausal bleeding (PMB). It is therefore recommended that women presenting with PMB are referred for further investigation. Premenopausal abnormal uterine bleeding is common and estimated to interfere with daily life in more than one-fifth of women. However, the current evidence base on premenopausal abnormal uterine bleeding and the risk of endometrial cancer is unclear. The selection of possible indicators for biopsy to exclude endometrial cancer is contentious and current guidance varies.^[5-7]

In the present study, proliferative phase was found to be present in 41.6 percent of the patients. Secretory phase was found to be present in 20.8 percent of the patients. Hyperplasia was found to be present in 26.4 percent of the patients. Abnormal uterine bleeding was clinical diagnosis in 30 patients, while it was pathologic diagnosis on 21 patients. Fibroid formation was clinical diagnosis in 20 patients, whereas on histopathologic examination, fibroid formation was found to be present in 15 patients. Sudhamani S et al assessed morphological changes in perimenopausal bleeding with high-risk factors predisposing to endometrial hyperplasia and malignancy. All the outdoor and indoor patients presenting with abnormal uterine bleeding with or without other clinical features in the perimenopausal age group (40-55 years) were included in the study. Specimen considered for histopathological study included endometrial biopsy, dilation and curettage, fractional curettage, cervical biopsy, and or hysterectomy with or without salpingo-oophorectomy done for diagnostic or therapeutic purposes. Most of the patients were in the age group of 40-45 (45%) with menorrhagia as the chief complaint. The bulk of the specimens were of total hysterectomy with bilateral salpingo-oophorectomy (43%). Functional endometrial changes were the most common cause in 40-50 years age group but endometrial carcinoma was the main cause of bleeding in the 51-55 years group indicating heightened occurrence of malignancy with increasing age.^[10] Talukdar B et al assessed clinical presentations of perimenopausal AUB and it is ultrasonographic and histopathological correlation of hysterectomy specimens. Among 103 number of hysterectomized cases for AUB, most of the patients were between 40 and 45 years of age (67.97%) and menorrhagia was the dominant clinical presentation. The majority (45.63%) of cases were diagnosed as fibroid uterus by ultrasonography with 89.13% sensitivity and 89.47% specificity. Histopathological reports of myometrium showed 44.66% fibromyoma, followed by 34.95% of the normal myometrium. Histopathology of endometrium

revealed hyperplasia in the most cases (56.31%) where simple typical type was the predominant. Uterine fibroid was the leading cause of AUB and radiological, pathological evaluation correlated well to diagnose fibroid.^[11]

Conclusion

From the above results the authors conclude that the most common cause of abnormal uterine bleeding in perimenopausal women are benign lesions of endometrium and myometrium. However; further studies are recommended.

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