e-ISSN: 0976-822X, p-ISSN:2961-6042

Available online on http://www.ijcpr.com/

International Journal of Current Pharmaceutical Review and Research 2026; 18(1); 1526-1532

Original Research Article

Assessment of Clinical Profiles in Women Presenting with Abnormal Uterine Bleeding

Vineeta Singh[1], Amit Kumar[2], Rajluxmi Tubid[3], Vijay Pratap Sinha[4]

[1]Senior Resident, Department of Obstetrics and Gynecology, SNMMCH, Dhanbad, Jharkhand, India
[2]Senior Resident, Department of Orthopedics, SNMMCH, Dhanbad, Jharkhand, India.
[3]Professor and HOD, Department of Obstetrics and Gynaecology, SNMMCH, Dhanbad, Jharkhand, India
[4]Professor and HOD, Department of Orthopaedics, SNMMCH, Dhanbad, Jharkhand, India

Received: 08-11-2025 / Revised: 23-12-2025 / Accepted: 29-01-2026
Corresponding Author: Dr. Amit Kumar
Conflict of interest: Nil

Abstract:

Background: Abnormal uterine bleeding (AUB) is a common gynecological complaint, accounting for nearly one-third of outpatient visits. It significantly affects women's quality of life, particularly in the perimenopausal age group, where the risk of endometrial pathology increases.

Aim: To assess the clinical and histopathological profiles of women presenting with abnormal uterine bleeding in the perimenopausal age group.

Methodology: A hospital-based descriptive cross-sectional study was conducted over one year among 60 women aged 45 ± 5 years presenting with AUB. Clinical data were collected using a pre-tested questionnaire. Endometrial samples were subjected to histopathological examination. Data were analyzed using SPSS, with $p < 0.05$ considered significant.

Results: Most participants were aged 40–41 years (30%) and multiparous (70%). Menorrhagia was the most common bleeding pattern (63.3%). Abdominal pain (33.3%) was the predominant associated symptom. Histopathology revealed proliferative endometrium in 30%, endometrial hyperplasia in 23.3%, secretory endometrium in 20%, and endometrial carcinoma in 6.7% of cases.

Conclusion: AUB in perimenopausal women is predominantly associated with benign endometrial changes, though premalignant and malignant lesions are present in a minority, emphasizing the need for comprehensive clinical and histopathological evaluation.

Keywords: Abnormal uterine bleeding, Perimenopause, Menorrhagia, Endometrial hyperplasia, Endometrial carcinoma, Histopathology.

DOI: 10.25258/ijcpr.18.1.264

Introduction

Abnormal uterine bleeding (AUB) refers to any bleeding pattern which is different in frequency, duration and quantity, compared to the usual pattern during a normal menstrual period or after menopause [1]. It covers a broad range of menstrual disorders and is one of the most frequent gynecological complaints that are presented in a clinical practice. AUB is not a disease but a symptom of other underlying structural, hormonal, systemic or malignant disorders. The fact that it affects the physical, psychological and social well-being of women and its idleness complexity makes it a key issue in the public health of women.

The most frequent presenting symptom and a big gynecology issue is abnormal uterine bleeding that results in up to one-third of all outpatients' gynecologic visits [2]. On the same note, in gynecology outpatient departments, a third of the patients in the clinics come with a complaint of abnormal uterine bleeding. The significance of this high prevalence is the need to conduct systematic evaluation and proper clinical assessment of women presenting with this condition. The clinical morbidity of AUB is not the only burden, it is also a major burden on quality of life, daily functioning and productivity, being related to frequent medical visits, investigations, and even operation [3] in some cases.

One of the most common presentations of AUB, menorrhagia occurs in 1030 percent of menstruating women any one time and also may happen at some point during the perimenopause period in 50 percent of women [4]. The abnormal pattern of bleeding is considered abnormal when the bleeding lasts longer

than seven days, when the pattern is irregular, or when the blood loss during the menstruation is excessive, which is usually more than 80ml per cycle. These departures of normal menstrual parameters could signify hormonal imbalance, pathology of the endometrium, anomalies in the structure of the uterus, or in the systemic disorders. Consequently, proper description of the pattern of bleeding is the key to further assessment and treatment.

Abnormal uterine bleeding refers to a highly prevalent gynecological condition that cannot be limited to any age group [5]. Nevertheless, etiology and clinical consequences of it differ greatly by age and status of the woman in terms of her reproductive capacity. AUB is most commonly connected with anovulatory cycles due to the immature state or malfunction of the hypothalamic pituitary ovary axis in adolescents and young reproductive-aged women. Structural causes may prevail on the contrary, in reproductive-age women, including leiomyomas, adenomyosis, and endometrial polyps. The clinical importance of AUB is heightened in peri-menopausal and post-menopausal women because the latter have a high risk of endometrial hyperplasia and endometrial carcinoma [6]. Therefore, there must be age-specific clinical profiling in the evaluation of women who come with abnormal uterine bleeding.

The climacteric period is a period of progressive ovarian activity. At first, ovulation stops, there is no corpus luteum developed and thus no secretion of progesterone by the ovary. Consequently, premenopausal menstrual cycles become short, usually anovulatory, and irregular. This anomaly of menstrual cycles during the period of perimenopause may be attributed to anovulation or atypical development of ovarian follicles [7]. This can cause excessive proliferation, irregular shedding and unpredictable patterns of bleeding by causing the absence of regular ovulation and secretion of progesterone, which in turn causes prolonged stimulation of the endometrial by the estrogen without an opposing effect of progesterone. This is one of the hormonal imbalances that lead to AUB within peri-menopausal women.

The risk of endometrial hyperplasia and endometrial carcinoma is heightened in more pronounced in peri-menopausal and post-menopausal women with abnormal uterine bleeding [8] indicated. In particular, post-menopausal bleeding should be subjected to immediate assessment due to its high correlation with endometrial malignancy. Endometrial changes that are premalignant may be indicated by persistent or heavy irregular bleeding even in peri-menopausal women. Thus, the clinical examination, correct imaging and histopathological diagnosis are crucial in ruling out or ruling in serious pathology.

Since the etiologies are numerous and the clinical presentation diverse, it is necessary to evaluate the clinical profiles in women, who present with abnormal uterine bleeding. Specific clinical profile involves assessment of age, parity, menstrual history, bleeding duration and pattern, and accompanying symptoms as well as pain or anemia, previous medical and operative history, and risk factors of endometrial pathology. Close monitoring of these parameters assists in determining the likely causes and category of the patients as to risk.

Diverse trends of endometrial variations in peri-menopausal and post-menopausal age groups have been an issue which has drawn interest in clinical research. Depending on the hormonal milieu and pathology, the endometrium can proliferate, secret, hyperplasia, atrophic, or be malignant. Knowledge of such trends concerning the clinical presentation can help to understand the mechanisms of the disease and make the necessary decisions regarding the treatment. This age group, in particular, is of interest because the correlation between clinical results and endometrial histopathology will greatly enhance the outcome upon early detection of premalignant and malignant conditions.

Besides being problematic to diagnose, abnormal uterine bleeding is problematic to treat. Treatment approaches are very diverse based on the cause, blood loss severity, the age of the patient, the reproductive aspirations and the comorbidity. The medical treatment can include hormonal therapy and say least invasive treatment or definitive surgical intervention like a hysterectomy. Thus, the key to personalized patient care is in the form of a thorough clinical evaluation.

In that regard, the current research will determine the clinical appearances of women presenting with abnormal uterine bleeding, specifically peri-menopausal and post-menopausal age styles. Through examination of available clinical data and comparison of bleeding patterns against endometrial changes, the study aims at making a contribution to a greater understanding of the range of abnormalities that are experienced by such patients. An organized assessment of clinical features would help in the prompt diagnosis, better risk categorization, and assistance in designing the relevant management plans to women with abnormal uterine bleeding.

Methodology

Study Design: This study was a hospital-based descriptive cross-sectional study conducted to assess the clinical and histopathological profiles of women presenting with abnormal uterine bleeding (AUB) in the perimenopausal age group. The design was chosen to evaluate clinical presentation and correlate it with histopathological findings at a single point during the study period.

Study Area: The study was conducted in the Department of Obstetrics and Gynecology at Shaheed Nirmal Mahto Medical College and Hospital (SNMMCH), Dhanbad, Jharkhand, India.

Study Duration: The study was carried out over a period of one year.

Sample Size: A total of 60 patients were included in the study. The sample size was determined based on a 5% level of significance and 20% allowable error. All eligible patients who attended the hospital during the study period and fulfilled the inclusion criteria were enrolled in the study.

Study Population: The study population consisted of women in the perimenopausal age group (45 ± 5 years) presenting with abnormal uterine bleeding at the Department of Obstetrics and Gynecology during the study period. These patients were evaluated clinically and subjected to histopathological assessment where indicated.

Sampling Method: No specific sampling technique was adopted for this study. A consecutive sampling method was used, wherein all patients fulfilling the inclusion criteria during the study period were included until the desired sample size was achieved.

Inclusion Criteria

- Women in the perimenopausal age group (45 ± 5 years).
- Women presenting with abnormal uterine bleeding.
- Women willing to participate and give consent.

Exclusion Criteria

- Women less than 40 years of age.
- Women with uterine bleeding due to intrauterine contraceptive devices (IUCD).
- Women not giving consent to participate in the study.

Data Collection: Data were collected using a pre-tested semi-structured questionnaire. The questionnaire was reviewed by departmental experts, modified as required, and finalized before data collection. It included details regarding socio-demographic characteristics, menstrual history, obstetric history, presenting complaints, and findings from general and systemic examination. Endometrial samples obtained through endometrial curettage/biopsy or hysterectomy were sent to the pathology laboratory for analysis. The specimens were fixed in 10% formalin, and gross morphology was recorded. Tissue processing was performed using an automatic tissue processor, followed by paraffin block preparation. Sections of 3–4 micrometers thickness were cut and stained with routine hematoxylin and eosin. Detailed histopathological examination was carried out, and findings were documented.

Procedure: Eligible patients presenting to the outpatient or inpatient department were identified and assessed. After obtaining verbal informed consent, detailed history and clinical examination were performed. Relevant investigations were conducted as per clinical indication. Endometrial samples were collected when indicated and sent for histopathological examination. Clinical findings were correlated with histopathological results for analysis.

Statistical Analysis: Data were entered into Microsoft Excel and analyzed using the Statistical Package for Social Sciences (SPSS). Continuous variables were expressed as mean and standard deviation, while categorical variables were presented as frequencies and percentages. Appropriate statistical tests such as the Chi-square test were applied where necessary. A p-value of less than 0.05 was considered statistically significant."

Result

Table 1 presents the age distribution of 60 participants. The most common age group was 40–41 years, comprising 18 women (30%), followed by 44–45 years with 14 women (23.3%). 48–49 years accounted for 9 cases (15%), and 42–43 years for 8 cases (13.3%). Smaller proportions were seen in the 46–47 years group (7, 11.7%) and ≥50 years (4, 6.7%). Overall, the majority of participants were in the early to mid-40s age range.

Table 1: Distribution based on age (N = 60)

Age group (years)	Frequency	Percentage
40 – 41	18	30
42 – 43	8	13.3
44 – 45	14	23.3
46 – 47	7	11.7
48 – 49	9	15
≥ 50	4	6.7
Total	**60**	**100**

Table 2 shows the distribution based on age of menarche among 60 women. The most common age at menarche was 12 years, reported in 18 cases (30%), followed by 13 years in 16 cases (26.7%) and

11 years in 12 cases (20%). 14 years was noted in 10 cases (16.7%), while ≥15 years occurred in 4 cases (6.6%). Overall, the majority attained menarche between 12 and 13 years of age.

Table 2: Distribution based on age of menarche		
Age of menarche	**Frequency**	**Percentage**
11 years	12	20
12 years	18	30
13 years	16	26.7
14 years	10	16.7
≥15 years	4	6.6
Total	**60**	**100**

Table 3 presents the distribution based on parity among 60 women. The majority were multiparous, accounting for 42 cases (70%), followed by grand multiparous women with 15 cases (25%). Only 3 women (5%) were nulliparous. Overall, most participants had a history of previous childbirth, with multiparity being the predominant group.

Table 3: Distribution based on parity		
Parity	**Frequency**	**Percentage**
Nulliparous	3	5
Multiparous	42	70
Grand multiparous	15	25
Total	**60**	**100**

Table 4 shows the distribution based on menstrual cycle pattern among 60 cases. A regular menstrual cycle was observed in 44 women (73.3%), while 16 women (26.7%) had irregular cycles. Overall, the majority of participants reported regular menstrual patterns.

Table 4: Distribution based on menstrual cycle pattern		
Menstrual cycle	**Frequency**	**Percentage**
Regular	44	73.3
Irregular	16	26.7
Total	**60**	**100**

Table 5 presents the distribution based on bleeding pattern. The most common pattern was menorrhagia, seen in 38 cases (63.3%), followed by polymenorrhoea in 17 cases (28.3%). Metrorrhagia was reported in 11 cases (18.3%), and menometrorrhagia in 5 cases (8.3%). Oligomenorrhea was not observed (0 cases, 0%). Overall, heavy menstrual bleeding (menorrhagia) was the predominant presentation.

Table 5: Distribution based on bleeding pattern		
Bleeding pattern	**Frequency**	**Percentage**
Menorrhagia	38	63.3
Metrorrhagia	11	18.3
Menometrorrhagia	5	8.3
Polymenorrhoea	17	28.3
Oligomenorrhea	0	0

Table 6 shows the distribution of associated complaints among the study participants. The most common complaint was pain abdomen, reported in 20 cases (33.3%), followed by dysmenorrhea in 12 cases (20%). Generalized weakness was noted in 6 cases (10%), backache in 4 cases (6.7%), and mass per vagina in 3 cases (5%). Overall, abdominal pain was the predominant associated symptom.

Table 6: Distribution based on associated complaints		
Complaints	**Frequency**	**Percentage**
Pain abdomen	20	33.3
Dysmenorrhea	12	20
Backache	4	6.7
Generalized weakness	6	10
Mass per vagina	3	5

Table 7 presents the histopathological findings of the endometrium in 60 cases. The most common pattern was proliferative endometrium seen in 18 cases (30%), followed by endometrial hyperplasia in 14 cases (23.3%) and secretory endometrium in 12 cases (20%). Disordered proliferative phase was observed in 7 cases (11.7%), while atrophic endometrium was noted in 5 cases (8.3%). Endometrial carcinoma was diagnosed in 4 cases (6.7%). Overall, benign endometrial patterns predominated, with a smaller proportion of premalignant and malignant lesions.

Table 7: Histopathological findings of endometrium

Histopathological pattern	Frequency	Percentage
Proliferative endometrium	18	30
Secretory endometrium	12	20
Endometrial hyperplasia	14	23.3
Disordered proliferative phase	7	11.7
Atrophic endometrium	5	8.3
Endometrial carcinoma	4	6.7
Total	**60**	**100**

Discussion

The Abnormal uterine bleeding (AUB) has been among the commonest gynecological complaints witnessed in perimenopausal women and the current study has also confirmed the high burden of abnormal uterine bleeding in women aged 40 years and above. Most of the cases in our series fell within the 40-45 years (53.3%), and the largest subgroup was 40-41 years (30%). This is in line with what Dass and Chugh (1964) [9] and Bhattacharji (1964) [10] both indicated that they had highest incidence in the 41 50-year age bracket. In the same manner, Muzaffar et al. (2005) [11] and Doraiswami et al. (2011) [12] reported the highest presentation during the perimenopausal decade due to the cause of hormone imbalance and anovulatory cycles. Mehrotra et al. (1972) [13], on the contrary, gave a higher incidence (71.3) in the 21-30-year reproductive age group and Wagh and Swamy (1964) also found higher frequency in younger women [14]. These differences can be due to demographic differences, referrals and inclusion criteria since our study was specifically targeting women aged 40 years and above. However, the high prevalence of cases at the perimenopausal age in our case is consistent with the pathophysiological transition known to be defined by fluctuation of estrogen levels and irregular ovulation."

On parity, we established that 70 percent of the women had more than one child, 25 percent more than three children and the remaining 5 percent have none. This finding is similar to Pillai et al., (2002) [15] who reported that 87% of the women were multiparous and Jairajpuri et al., (2013) [16] who identified 61.5% multiparous cases in AUB. It was also reported that in parous women, higher incidence was recorded by Bhattacharji (1964) [10] and Devi PK (approximately 4648.6%). Mehrotra et al. (1972) [13] noted multiparty in 46 percent of instances which, though a little less than our 70, nonetheless indicates the same tendency. We have a low rate of nulliparous (5) in our study which is significantly lower than 18 21 reported by Dass and Chugh (1964) [9] and Jairajpuri et al., (2013) [16]. This difference can be attributed to the regional fertility patterns and the difference in sample size. The increased frequency in the multiparous women might be due to cumulative exposure of the endometriums to hormonal changes and structural changes in the uterine that occur after a repeated pregnancy.

The abnormal bleeding presented by most (73.3) of the women led to regular menstrual cycles in most of them (73.3), and among the remainder (26.7), the cyclical menstruation cycle was irregular. This trend implies that AUB during perimenopause can be present despite the apparent regularity of the cycles, and this is potentially because of minor ovulatory malfunction. The same has been restated by Muzaffar et al. (2005) [11] who argued that excessive blood loss may occur during ovulatory and anovulatory cycles, which underscores the multifactorial etiology of AUB.

The most frequent bleeding pattern of our study was menorrhagia, which was present in 63.3% of cases, next came polymenorrhoea (28.3) and metrorrhagia (18.3). These results are in strong correlation with Mehrotra et al. (1972) [13] who also documented heavy menstrual bleeding to be the most common manifestation in their 150-case study. The same case was reported in Pillai et al. (2002) [15] where the major complaint in most of the cases was the menorrhagia. On the contrary, there are articles like the Muzaffar et al. (2005) one, which found that proportion of intermenstrual bleeding was relatively higher than ours (18.3) [11]. The average of the women in our series did not report oligomenorrhea, however, unlike some other reports such as Wagh and Swamy (1964) [16] where oligomenorrhea was minor but significant proportion. The fact that our cohort lacks oligomenorrhea could be explained by the age group chosen because during perimenopause women tend to have heavy and frequent bleeding instead of having irregular cycles.

Other symptoms that were associated with pain abdomen (33.3%), dysmenorrhea (20%), generalized weakness (10%), and back ache (6.7%) were also found in our study. These results are associated with those of Doraiswami et al. (2011) [12] who also found abdominal pain and dysmenorrhea to be frequent comorbidities. The finding of generalized weakness in 10% of our patients is probably due to chronic loss of blood and anemia, which is a frequent outcome of chronic menorrhagia as stated by Ghani et al. (2012) [17].

Histopathological examination showed that proliferative endometrium was the most common pattern (30%), then endometrial hyperplasia (23.3) and secretory endometrium (20). The outcome is similar to Sanyal et al. (1981) [18] which showed proliferative endometrium in a large cohort of 1920 cases to be the most common manifestation. Proliferative endometrium was also found in 37 percent of cases (Doraiswami et al., 2011) [12], which is very close to ours (30 per cent). Our study (23.3) has a slightly higher proportion of endometrial hyperplasia compared with reported proportion of 1520% in some other previous studies, which perhaps reflects the perimenopausal predominance in our study where unopposed estrogen stimulation is more prevalent. The fact that endometrial carcinoma was detected in 6.7% of the cases is clinically important and is similar to the range of 5-8 percent that Muzaffar et al. (2005) [11] reported. This highlights the need to perform a regular histopathological examination in women older than 40 years of age who present with AUB as was highlighted by Jairajpuri et al., (2013) [16].

Comprehensively, the current study illustrates that AUB in women aged 40 years and above is mostly observed in women of multiparous, perimenopausal age and that menorrhagia and proliferative endometrium are the predominant histopathological findings and chief complaints respectively. Although we have found that the results are very similar to those of previous Indian and regional investigations, our results indicate some slight differences in the age distribution, the proportion of parity, and patterns of histopathology, which point to the effects of demographic and methodological variations. To support the need of personalized assessment and histopathological validation, the comparative analysis proves the importance of the AUB management in the vulnerable age group.

Conclusion

The current research on the evaluation of clinical profiles of women presenting with abnormal uterine bleeding shows that the disorder is mainly seen in the perimenopausal age cohort with majority of them having menarche in early adolescence. The percentage of the affected women was more of the multiparous ones and most of them had regular menstrual cycles, but with abnormal bleeding patterns. The most frequent presentation was metrorrhagia, then the other patterns were metrorrhagia and polymenorrhoea, and oligomenorrhea was not reported. The related symptoms were intermittent, and abdominal pain and dysmenorrhea were quite frequent. The histopathological analysis of the endometrium showed a continuum of results of normal proliferative and secretory processes to the hyperplasia, disturbed proliferative processes, atrophy, and a limited percentage of malignant cases. Overall, the study highlights that abnormal uterine bleeding in this population is multifactorial, with structural and functional endometrial alterations contributing significantly to clinical presentation, underscoring the importance of thorough clinical and histopathological evaluation for appropriate management.

References

1. Dangal G. A study of endometrium of patients with abnormal uterine bleeding at Chitwan Valley. Kathmandu University medical journal (KUMJ). 2003 Apr 1;1(2):110-2.
2. Khare A, Bansal R, Sharma S, Elhence P, Makkar N, Tyagi Y. Morphological spectrum of endometrium in patients presenting with dysfunctional uterine bleeding. People's J Sci Res. 2012;5(2):13-6.
3. Livingstone M, Fraser IS. Mechanisms of abnormal uterine bleeding. Human reproduction update. 2002 Jan 1;8(1):60-7.
4. Mirza T, Akram S, Mirza A, Aziz S, Mirza T, Mustansar T. Histopathological pattern of abnormal uterine bleeding in endometrial biopsies. Journal of Basic & Applied Sciences. 2012 Feb 28;8(1):114-7.
5. Awwad JT, Toth TL, Schiff I. Abnormal uterine bleeding in the perimenopause. International journal of fertility and menopausal studies. 1993 Sep 1;38(5):261-9.
6. Speroff L, Fritz MA, editors. Clinical gynecologic endocrinology and infertility. lippincott Williams & wilkins; 2005.
7. Padubidri VG, editor. Howkins And Bourne Shaw S Textbook Of Gynaecology. Elsevier India; 2008.
8. Kumar A, Mittal S. Endometrial sampling: How? & why. Obs and Gynae Today. 2007;12(6):284-87.
9. Dass AN, Chugh S. Dysfunctional uterine bleeding. J Obstet Gynae India. 1964:348-53.
10. Bhattacharji SK. Dysfunctional Uterine bleeding Correlation of endometrial pattern with clinical behavior. J. Obstet and Gynecol India. 1964;14(2):372-9.
11. Muzaffar M, Akhtar KA, Yasmin S, Iqbal W, Khan MA. Menstrual irregularities with excessive blood loss: a clinico-pathological

correlation. JPMA. The Journal of the Pakistan Medical Association. 2005 Nov;55(11):486-9.
12. Doraiswami S, Johnson T, Rao S, Rajkumar A, Vijayaraghavan J, Panicker VK. Study of endometrial pathology in abnormal uterine bleeding. The journal of Obstetrics and Gynecology of India. 2011 Aug;61(4):426-30.
13. Mehrotra VG, Mukerjee K, Pandey M, Samanth V. Functional uterine bleeding (A review of 150 cases). J Obstet Gynaecol India. 1972;22:684-9.
14. Wagh KV, Swamy V. Functional uterine haemorrhage. J Obstet and Gynecol India. 1964;14:87-392.
15. Pillai GS, Sethi B, Dhaded AV, Mathur PR. Dysfunctional Uterine Bleeding (Study of 100 cases). J Obstet Gynaecol India. 2002;52(3):87-9.
16. Jairajpuri ZS, Rana S, Jetley S. Atypical uterine bleeding-Histopathological audit of endometrium A study of 638 cases. Al Ameen J Med Sci. 2013 Apr 24;6(1):21-8.
17. Ghani NA, Abdulrazak AA, Abdullah EM. Abnormal uterine bleeding: a histopathological study. Journal of Pathology Research. 2014 Jan 1;3(2):68.
18. Sanyal MK, Sanyal S, Bhattacherjee KK, Roy Choudhuri NN. Clinico-pathological study of endometrium: a review of three thousand nine hundred twenty cases in different gynaecological abnormalities. J Obstet Gynaecol India. 1981;31(5):816-21.