

ORIGINAL RESEARCH ARTICLE

THE EVALUATION OF ABNORMAL UTERINE BLEEDING IN PERIMENOPAUSAL ADULT WOMEN AND ITS CORRELATION WITH SONOGRAPHIC FINDINGS- A PROSPECTIVE STUDY

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ABSTRACT

BACKGROUND: Abnormal uterine bleeding (AUB) is a frequent symptom and frequently encountered gynecologic complaint in peri-menopausal woman and also the most common cause of hysterectomy in this age group. **AIMS & OBJECTIVE:** Evaluation of various clinical presentations of perimenopausal AUB and its ultrasonographic correlation and to study abnormal uterine bleeding and its type in perimenopausal women as well as to compare diagnostic efficacy of ultrasonography. **METHODS AND MATERIALS:** The study was carried out in the Department of Radiology in collaboration with the department of Obstetrics and Gynecology, Madhubani Medical College, Madhubani, Bihar in 100 patient attending outpatient departments with AUB in perimenopausal age group in a time span of one year (12 months) from April 2022 to March 2023 after obtaining the institutional ethical committee clearance and consent from the patients from selected patients. The relevant data such as age, parity, menstrual symptoms, and other associated findings in clinical examination were recorded. In all these women, transvaginal ultrasonographic evaluation was done. The clinical

presentations and ultrasonographic findings were correlated and results were analyzed.

RESULTS: Thirty-nine percent women were in 39 to 42 years, 42% in 43 to 46 years while 19% were in 48 to 51 years. Most of women were multiparous having 2 to 4 children, i.e. 49%. Majority of women presented with chief complaint of menorrhagia (40%) followed by polymenorrhea (22%) and metrorrhagia (17%). Majority (85%) of women had uterine volume between 150 and 250 cm³. Endometrial hyperplasia was found in 16% on ultrasonography, in 11% on hysteroscopy while in 15% on histopathology. **CONCLUSION:** In the evaluation of AUB, outpatient transvaginal ultrasound is a simple, non-invasive, and cost-effective tool. Histopathological study of the endometrium will confirm, correlate and categorize AUB and dictates further management. Normal ultrasonography did not rule out endometrial causes of AUB.

Keywords: Peri-menopause, abnormal uterine bleeding and ultrasonography.

INTRODUCTION:

Abnormal uterine bleeding (AUB) is very common problem in patient attending outpatient department, especially in perimenopausal group. In 2001, Stages of reproductive aging workshop (STRAW) peri-menopause is defined as the period beginning with menopausal transition and ending 12 months after the last menstrual period [1,2]. This period may last for many years. 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 [3]. It occurs in various forms such as menorrhagia, polymenorrhea, polymenorrhagia, metrorrhagia, and menometrorrhagia [4]. The International Federation of Gynecology 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 [5]. AUB may be an expression of hormonal milieu, or it could be the clinical presentation of benign or malignant lesions of female genital tract in perimenopausal woman. However, there are no detectable structural abnormalities in majority of cases, and

this is called dysfunctional uterine bleeding (DUB). DUB, fibroid uterus, and adenomyosis are the common hyperoestrogenic conditions where endometrium remains in the proliferative phase and if untreated may lead to endometrial carcinoma. Therefore, clinical examination and investigations are essential to find out the etiological factor in a perimenopausal patient presenting with AUB. Ultrasonography (USG) can be used to exclude organic pathology for AUB. It is well accepted that various disease pathology can be detected accurately by histopathological examination (HPE). The current study was carried out to evaluate various clinical presentations of perimenopausal AUB and to correlate with ultrasonographic findings.

AIMS AND OBJECTIVE: The Evaluation of various clinical presentations of perimenopausal AUB and its ultrasonographic and correlation and to study abnormal uterine bleeding and its type in perimenopausal women as well as to compare diagnostic efficacy of ultrasonography.

MATERIAL AND METHODS:

The study was carried out in the Department of Radiology in collaboration with the department of Obstetrics and Gynecology, Madhubani Medical College, Madhubani, Bihar in 100 patient attending outpatient departments with AUB in perimenopausal age group. The study was conducted in a time span of one year (12 months) from April 2022 to March 2023 after obtaining the institutional ethical committee clearance and consent from the patients.

Inclusion criteria:

1. Women aged 25 to 50 years, cases of abnormal uterine bleeding in the reproductive and perimenopausal age group (25-50 years)_Known case and history of perimenopausal bleeding
2. AUB includes any of the following: a menstrual cycle of 38 days; Irregularity of menses, cycle-to-cycle variation of >20 days during 12 months; duration of flow of >8 days; duration of flow of 80 ml; the volume of monthly blood loss

Exclusion criteria:

1. Vaginal bleeding caused by pregnancy and pregnancy-related factors, vaginitis and other vaginal causes, vaginal bleeding caused by trauma, post-menopausal bleeding women with an intrauterine device in situ, with endocrine disorders bleeding disorders and adnexal pathology.
2. Bleeding due to any other causes apart from peri-menopausal.

METHODOLOGY:

A prospective hospital-based study was undertaken on women with menstrual disorders attending outpatient departments and inpatient admissions. After obtaining informed consent from selected patients, the relevant data such as age, parity, menstrual symptoms, and other associated findings in clinical examination were recorded. In all these women, transvaginal ultrasonographic evaluation was done. The clinical presentations and ultrasonographic findings were correlated and results were analyzed.



Fig: 1 Transvaginal ultrasound



Fig: 2 Abnormal uterine bleeding

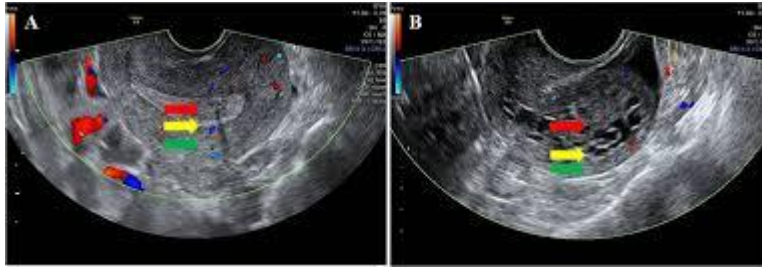


Fig:3 Abnormal uterine bleeding

STATISTICAL ANALYSIS:

Collected data were entered in the Microsoft excel spreadsheet, coded appropriately and later cleaned for any possible errors. Analysis was carried out using Statistical Package for the Social Sciences (SPSS) for windows version 21.0. Statistical analyses were performed using the chi-square test and student’s t-test and results were analysed.

OBSERVATION AND RESULT:

Thirty-nine percent women were in 39 to 42 years, 42% in 43 to 46 years while 19% were in 48 to 51 years (Table 1). Most of women were multiparous having 2 to 4 children, i.e. 49% (Table 2). Majority of women presented with chief complaint of menorrhagia (40%) followed by polymenorrhea (22%) and metrorrhagia (17%). (Table-3). Majority (85%) of women had uterine volume between 150 and 250 cm³. Endometrial hyperplasia was found in 16% on ultrasonography, in 11% on hysteroscopy while in 15% on histopathology (Tables 4). The majority of patients gave a history of menstrual problem between 3 and 6 months. 56(56.0%), and menorrhagia was the dominant presentation.

Table 1: Distribution of cases according to their age

Sl. no.	Age group	No. of patients	Percentage
1	40-43 years	39	39

2	44-47 years	42	42
3	48-51 years	19	19

Table 2: Distribution of cases according to their parity

Sl. no.	Parity	No. of patients	Percentage
1	<2	21	21
2	2-4	49	49
3	>4	30	30

Table 3: Distribution of cases according to their symptoms

Sl. no.	Chief complaints	No. of patients	Percentage
1	Menorrhagia	40	40
2	Metrorrhagia	17	17
3	Menometrorrhagia	11	11
4	Polymenorrhea	22	22
5	Hypomenorrhea	6	6
6	Postcoital/other	4	4
	Total	100	100

Table 4: Distribution of cases according to ultrasound findings

Sl. no.	Usg findings	No. of patients	Percentage
1	Normal	33	33
2	Submucous myoma	2	2

3	Endometrial hyperplasia	11	11
4	Atrophic endometrium	3	3
5	Endometrial polyp	7	7
6	Fibroid	20	20
7	PID	23	23
8	Forgotten IUCD	1	1

DISCUSSION:

The exact etiology and diagnosis of AUB are often difficult to make thereby posing a difficulty in selecting a treatment protocol. Patients with AUB can present acutely or chronically with heavy menstrual bleeding and/or intermenstrual bleeding. However, the gold standard for diagnosing AUB is hysteroscopic guided targeted endometrial biopsy, dilation, and curettage were accepted at our hospital for confirming the diagnosis due to their ease and costeffectiveness [6]. The most common bleeding pattern observed in our study was heavy menstrual bleeding with the maximum incidence of AUB seen in multiparous women. 82.5% of the women had bulky uterus during the time of examination most of whom were diagnosed to have fibroid uterus and adenomyosis as sonological diagnosis. 31.5% of subjects diagnosed based on TVS [7]. Significant correlation was found in USG findings in the following study.

AUB is one of the main gynecological reasons of hysterectomy and accounts for two-thirds of all hysterectomies [8]. In this study, 100 numbers of perimenopausal bleeding patients were analyzed. Most number of patients (46%) was between 43 and 46 years age group. The common menstrual problem was menorrhagia (40.0%). This finding was comparable with the study of Jetley *et al* [9] and Shobha [10] in which clinical presentation as menorrhagia in AUB evaluation revealed 46.8% and 48.2%, respectively. It appeared in this study that the maximum patients attended hospital for treatment after suffering for 3–6 months (56%) which was comparable to the study of Kathuria and Bhatnagar (50%) [11].

In this study, USG detected thickened endometrium in 11 cases. Out of these, 6 cases clinically presented as postmenopausal bleeding. Among those 6 cases, histopathologically 2 were diagnosed as endometrial hyperplasia and 1 was endometrial carcinoma. Hence, all patients of postmenopausal bleeding with thickened endometrium on USG, HPE revealed abnormal endometrial pathology.

CONCLUSION:

In the evaluation of AUB, outpatient transvaginal ultrasound is a simple, non-invasive, and cost-effective tool. Histopathological study of the endometrium will confirm, correlate and categorize AUB and dictates further management. Normal ultrasonography did not rule out endometrial causes of AUB.

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