

## An Observational Assessment of the Clinico-Etiologic Profile of Abnormal Uterine Bleeding (AUB) among Women in Peri-Menopausal Age Group: A Retrospective Study

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### Abstract

**Aim:** Clinico-etiological profile of abnormal uterine bleeding (AUB) among women in perimenopausal age group.

**Materials and Methods:** This study included retrospective study of randomly selected 210 cases of abnormal uterine bleeding between 40–55 years of age during a period of 24 months, in the Dept. of Obstetrics & Gynecology, Patna Medical College & Hospital, Patna. Patients were evaluated with menstrual history, physical examination, laboratory tests, imaging studies and histological examinations.

**Results:** Most common age group presenting with AUB was 40–45 years (65.2%). Most of the women were multiparous and menorrhagia was most common presentation. Among organic causes fibroid (30%) uterus was most common. Majority of patients had mild anemia.

**Conclusion:** Abnormal uterine bleeding (AUB) is a common gynecological complaint associated with considerable morbidity and significantly affects the patient's family, personal and social life. Perimenopausal women's health and quality of life can be maintained and improved through preventive care, lifestyle modification, early diagnosis of risk factor or disease and appropriate treatment.

**Keywords:** Abnormal uterine bleeding, Perimenopausal women, Endometrium.

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### Introduction

Abnormal uterine bleeding is the most common and frequent presenting complaint in Gynecology Outpatient Department in all age groups, especially in perimenopausal women. [1] Abnormal uterine bleeding may be defined as a bleeding pattern that differs in frequency, duration and amount from a

pattern observed during a normal menstrual cycle or after menopause. In the perimenopausal age variation in normal cyclical pattern may be due to physiological hormonal changes or pathological. Ultrasonography is an appropriate relevant radiological diagnostic tool to identify

structural abnormalities in uterus and adnexae. [2]

Perimenopausal age of a women's life is still an enigma. In 2001, Stages of reproductive aging workshop (STRAW) defined perimenopause as the beginning with menopausal transition and ending 12 months after the last menstrual period. It is associated with menstrual and endocrinal alteration and may last for many years (2 to 8 years). [3]

Organic causes of AUB includes benign pelvic lesion (fibroid, adenomyosis, cervical and endometrial polyp, tuberculosis), infection, trauma, iatrogenic (hormonal replacement therapy, contraceptive use, anticoagulant therapy), malignancy of cervix, endometrium or ovary, systemic illness (hypertension, diabetes mellitus, thyroid disorders), etc. AUB can be classified as ovulatory or an ovulatory, depending on whether ovulation is occurring or not.[4] The investigation of a patient with AUB in perimenopausal age begins only after thorough history, general physical examination and systemic evaluation. Once malignancy and significant pelvic pathology have been ruled out, medical treatment is an effective first line therapeutic option for abnormal uterine bleeding. Effective medical treatment options include non-hormonal (non-steroidal anti-inflammatory drugs, antifibrinolytics) and hormonal (combined hormonal contraceptives, levonorgestrel-releasing intrauterine system, Oral progestins (long phase, days 5 to 26), Depot- medroxyprogesterone acetate, Danazol, GnRH-agonists). [5]

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Improvement in quality of life is the ultimate goal of treatment and may occur through achieving eumenorrhea or amenorrhea. Surgical options for managing AUB depend on several factors including the patient's expectations and uterine pathology. Surgical options include dilation and uterine curettage, hysteroscopic polypectomy, endometrial ablation, myomectomy, and hysterectomy.[7]

### Materials and Methods:

This retrospective observational study of 210 cases of abnormal uterine bleeding between 40-55 years of age, attended to OPD & Gynaec emergency was conducted during a period of 24 months in the Dept. of Obstetrics & Gynecology, Patna Medical College & Hospital, Patna, Bihar

### Methodology:

Details of each patient were recorded and analyzed with respect to aetiopathology, age, parity, marital status, socioeconomic status, treatment options and other medical disorders. All perimenopausal (40 to 55 year) women presenting with abnormal uterine bleeding were included and women with active or recent pelvic inflammatory disease, patient in menstruation phase, pregnancy or suspected pregnancy complications and cervical stenosis were excluded from the study.

### Results:

Out of 210 patients studied, 137 (65.2%) cases were in the age group of 40 to 45 years followed by 59 (28.0%) cases in 46 to 50 years and 14 (6.6%) in 51 to 55 years of age.

**Table 1: Age distribution of AUB cases**

| Age Group (years) | No. of Cases | Percentage (%) |
|-------------------|--------------|----------------|
| 40-45             | 137          | 65.2           |
| 46-50             | 59           | 28.0           |
| 51-55             | 14           | 6.6            |

It is evident from our study that AUB was much more common in multiparous women than in nulliparous. Out of 210 cases, 195 (92.8%) belonged to para 1 and above, and among these, AUB was more common in para 1-3 (73.3%).

**Table 2: Distribution of cases according to parity**

| Parity         | No. of Cases | Percentage (%) |
|----------------|--------------|----------------|
| Para 0         | 15           | 7.1            |
| Para 1-3       | 154          | 73.3           |
| Para 4 & above | 41           | 19.5           |

In the present study, among organic causes, uterine fibroid was seen in 63 (30%) cases, adenomyosis in 9 (4.2%), pelvic inflammatory disease (PID) in 8 (3.8%), endometriosis in 8 (3.87%), H. mole in 5 (2.3%) and endometrial carcinoma in 4 (1.9%) cases. Rest of the causes attributed only 6 to 7% of cases. 2 cases of AUB had associated hypothyroidism.

**Table 3: Etiology of various organic causes**

| Etiology                    | No. of Cases | Percentage (%) |
|-----------------------------|--------------|----------------|
| Fibroid                     | 63           | 30             |
| Adenomyosis                 | 9            | 4.2            |
| Pelvic inflammatory disease | 8            | 3.8            |
| Endometriosis               | 8            | 3.8            |
| H. mole                     | 5            | 2.3            |
| Endometrial carcinoma       | 4            | 1.9            |
| Cervical carcinoma          | 4            | 1.9            |
| Cervical polyp              | 3            | 1.4            |
| Endometrial ploy            | 3            | 1.4            |
| Hypothyroidism              | 2            | 0.9            |
| Tuberculous endometritis    | 2            | 0.9            |
| Ovarian tumor               | 1            | 0.4            |
| IUCD                        | 1            | 0.4            |

It was observed that commonest bleeding pattern in our series was menorrhagia (51.4%). Metrorrhagia accounted for 28.0% of cases. Polymenorrhoea and polymenorrhagia were seen in 31 (14.7%) and 10 (4.7%) cases respectfully.

**Table 4: Pattern of various menstrual irregularities in AUB cases**

| Bleeding pattern    | No. of Cases | Percentage (%) |
|---------------------|--------------|----------------|
| Menorrhagia         | 108          | 51.4           |
| Metrorrhagia        | 59           | 28.0           |
| Polymenorrhoea      | 31           | 14.7           |
| Polymenorrhagia     | 10           | 4.7            |
| Continuous bleeding | 2            | 0.9            |

Maximum number of patients (55.7%) in this study had mild anemia with hemoglobin 10 to 10.9 gm. %. 49 (23.3%) cases were having acceptable level of hemoglobin. Moderate degree anemia was present in 29 (13.8%) cases and 15 (7.1%) case had severe anemia.

**Table 5: Association of anemia in AUB**

| Hb in gm.% | No. of Cases | Percentage (%) |
|------------|--------------|----------------|
| > Hb in    | 49           | 23.3           |
| 10-10.9    | 117          | 55.7           |
| 7-9.9      | 29           | 13.8           |
| <7.0       | 15           | 7.1            |

Histopathological examination of endometrium obtained from diagnostic curettage as well as from hysterectomy specimen revealed proliferative endometrium in 93 (44.2%) cases and secretory in 67 (31.9%). Atrophic endometrium was found in 4 (1.9%) and in 2 (0.9%) cases endometrial carcinoma was detected.

**Table 6: Endometrial pattern in AUB cases**

| Endometrial pattern   | No of cases | Percentage (%) |
|-----------------------|-------------|----------------|
| Proliferative         | 93          | 44.2           |
| Secretory             | 67          | 31.9           |
| Hyperplastic          | 35          | 16.6           |
| Irregular shedding    | 6           | 2.8            |
| Atrophic              | 4           | 1.9            |
| Endometrial polyp     | 2           | 0.9            |
| Endometrial carcinoma | 2           | 0.9            |
| TB endometritis       | 1           | 0.4            |

### Discussion:

In this study, out of 210 patients studied, 137 (65.2%) cases were in the age group of 40 to 45 years followed by 59 (28.0%) cases in 46 to 50 years and 14 (6.6%) in 51 to 55 years of age. This finding varied with M. B. Swami et al. study which showed 53.60% cases in the age group of 40 to 45 years and 22.40% cases in 46 to 50 years of age.[8] In their study, Urvashi Verma et al. showed 38% cases in the age group of 40-43 years, 41% in 44-47 years and 21% in 48-51 years. [9]

AUB was the commonest problem in the perimenopausal age with highest incidence in many more studies like Gopalan U et al, study (54.7%), Doraiswami S et al, Damle P et al, Muzaffar M et al. [9-12]

Nulliparity, early menarche, late menopause, unopposed endogenous and exogenous oestrogens, chronic anovulation and Tamoxifen therapy have all been proven to be risk factors for the development of endometrial hyperplasia and carcinoma. [13]

Maximum number of patients (n=96, 53.33%) in this study had mild anemia with hemoglobin 10 to 10.9 gm.%. Nahid Sultana et al. showed that about 60% patients had hemoglobin level less than 50% and only 20% patients had hemoglobin level more than 60%. [14]

Katke RD et al. showed proliferative endometrium in 46.90% cases, secretory in 40.90%, hyperplastic in 6.00%, irregular shedding in 1.50% and atrophic in 1.66% cases of AUB in perimenopausal women. 11 Kumar Suneet study showed proliferative endometrium in 36% cases, secretory in 24%, hyperplastic in 16.00% and atrophic in 14% cases. [15]

### Conclusion:

Perimenopause is an important age group where AUB is common. Many therapeutic approaches to the management of perimenopausal disturbances exist. The perimenopausal women quality of life and health can be maintained & improved through preventive care, lifestyle modification, early diagnosis of disease and

intervention when appropriate. AUB may be due to malignancy of genital tracts. Our clinical goal should be to optimize the women health during and after perimenopause.

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