

## Clinical profile of patients with abnormal uterine bleeding at a tertiary care hospital

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### ABSTRACT

**Background:** Abnormal uterine bleeding is a very common gynecological condition that affects all age groups. One third of patients attending gynaecology OPD present with complaints of abnormal uterine bleeding. Bleeding is said to be abnormal when the pattern is irregular, abnormal duration (>7 days), or menorrhagia or abnormal amount (>80 ml/menses).

**Methods:** All patients in the perimenopausal age group (45±5 years) with symptoms of abnormal uterine bleeding presenting at department of OBG, Tertiary care centre during the study period were included in the study. Totally 50 study subjects were included in the study as this number of patients attended hospital during the study period.

**Results:** The most common presenting symptom was pain abdomens (28%) followed by dysmenorrhea (16%), and back ache (2%). The most common bleeding pattern was menorrhagia (64%) followed by polymenorrhoea (28%), metrorrhagia (18%) and menometrorrhagia (8%).

**Conclusions:** The entire bleeding pattern was more commonly associated with abnormal uterine bleeding.

**Keywords:** Abnormal uterine bleeding, Menorrhagia, DUB

### INTRODUCTION

Abnormal uterine bleeding is defined as any bleeding pattern that differs in the frequency, duration and amount from a pattern observed during a normal menstrual cycle or menopause. It is a common problem having a long list of causes in different age groups.<sup>1</sup>

Abnormal uterine bleeding is the commonest presenting symptom and major gynaecological problem responsible for as many as one-third of all out patient gynaecologic visit.<sup>2,3</sup>

Menorrhagia affects 10-30% of menstruating women at any one time, and may occur at some time during the perimenopause in up to 50% of women.<sup>4</sup>

Abnormal uterine bleeding is a very common gynecological condition that affects all age groups. One third of patients attending gynaecology OPD present with complaints of abnormal uterine bleeding.<sup>5</sup> Bleeding is said to be abnormal when the pattern is irregular, abnormal duration (>7 days), or menorrhagia or abnormal amount (>80 ml/menses).<sup>6</sup>

During climacteric, ovarian activity declines. Initially, ovulation fails, no corpus luteum forms, and no progesterone are secreted by the ovary. Therefore the premenopausal menstrual cycles are shortened, often anovulatory and irregular. The irregularity in menstrual cycle during perimenopause can be due to anovulation or to irregular maturation of follicles.<sup>7</sup> The increased risk of endometrial hyperplasia and endometrial carcinoma is more evident in peri-menopausal and post-menopausal

women with abnormal uterine bleeding.<sup>8</sup> The varied pattern of endometrial changes attracted our attention in peri-menopausal and post-menopausal age so to study them in detail with the help of available clinical data.

## METHODS

The study population consisted of patients in the perimenopausal age group (45±5 years) presenting with abnormal uterine bleeding.

### Inclusion criteria

1. Patients in the perimenopausal age group (45±5 years)
2. Abnormal uterine bleeding.

### Exclusion criteria

1. Patients less than 40 years of age.
2. Patients with uterine bleeding due to intra-uterine devices.
3. Patients not giving their consent to participate in the study.

### Sample size

All patients in the perimenopausal age group (45±5 years) with symptoms of abnormal uterine bleeding presenting at department of OBG, Tertiary care centre during the study period were included in the study

Sample size is based on level of precision; precision consists of significance level and allowable error. In this study 5% significance and 20% allowable error is considered. Totally 50 study subjects were included in the study as this number of patients attended hospital during the study period

### Method of sampling

No sampling method adopted as all the study subject fitting to inclusion criteria were considered

### Method of collection of data

#### Study tool

Pre tested semi structured Questionnaire. The Questionnaire was presented in the Department for critical review, following which necessary changes were made in the Questionnaire.

Data was collected using Pre tested semi structured Questionnaire which was filed by the investigator. The endometrial samples (endometrial curettage/ biopsy and hysterectomy specimens) sent to pathology laboratory were analysed.

These specimens are fixed in 10% formalin and gross

morphology was recorded. Endometrial samples were hysterectomy specimens. These bits were placed in cassettes and kept in fixative and processed in the totally embedded and representative bits are taken from automatic tissue processor.

Paraffin tissue blocks were prepared and 3-4 micrometre thick sections were cut and stained with routine haematoxylin and eosin. A detailed histological study was carried out and the findings were noted. Statistical analysis was done.

### Data entry and analysis

Using Micro soft excel and Statistical package for social sciences

### Ethical consideration

The protocol designed for the present study was submitted to the Ethical committee, after getting clearance from Research committee. Verbal consent was also taken and Confidentiality of the data is maintained.

## RESULTS

**Table 1: Distribution based on age.**

Age group	Frequency	Percentage
40 – 41 years	15	30.0
42 – 43 years	03	06.0
44 – 45 years	14	28.0
46 – 47 years	04	08.0
48 – 49 years	08	16.0
50 years and above	06	12.0
Total	50	100

It was found that highest proportion of patients were in the age group of 40 – 41 years (30%) followed by 44 – 45 years (28%), 48 – 49 years (16%), 50 years (12%) and 42 – 43 years (6%).

**Table 2: Distribution based on age of menarche.**

Age of menarche	Frequency	Percentage
11 years	10	20.0
12 years	15	30.0
13 years	14	28.0
14 years	09	18.0
16 years	02	04.0
Total	50	100

In this study, 30% of patients attained the age of menarche at 12 years, 28% of patients attained the age of menarche at 13 years, 20% of patients attained the age of menarche at 11 years, 18% of patients attained the age of menarche at 14 years, 4% of patients attained the age of menarche at 16 years.

**Table 3: Distribution based on parity.**

Parity	Frequency	Percentage
Nulliparous	02	04.0
Multiparous	36	72.0
Grand multiparous	12	24.0
Total	50	100

Among total study subjects, 72% were multiparous, 24% were grand multiparous and 4% nulliparous.

**Table 4: Distribution based on menstrual cycles.**

Menstrual cycle	Frequency	Percentage
Regular	38	76.0
Irregular	12	24.0
Total	50	100

Irregular cycles were found in 24% of patients.

**Table 5: Distribution based on bleeding pattern.**

Bleeding pattern	Frequency	Percentage
Menorrhagia	32	64.0
Metrorrhagia	09	18.0
menometrorrhagia	04	08.0
Oligomenorrhoea	00	00
Polymenorrhoea	14	28.0

**Table 6: Distribution based on other complaints.**

Complaints	Frequency	Percentage
Pain abdomen	14	28.0
Dysmenorrhoea	08	16.0
Back ache	01	02.0
Generalized weakness	01	02.0
Mass per vagina	01	02.0

**Table 7: Comparative study of age incidence.**

Authors	No	<20		21- 30		31- 40		41- 50		51 and above	
		Total	%	Total	%	Total	%	Total	%	Total	%
Sutherland <sup>9</sup> (1950)	1000	36	3.6	242	24.2	343	34.3	362	36.2	17	1.7
Anusuya Das <sup>10</sup> (1964)	117	17	14.5	24	20.5	33	28.2	38	32.5	5	4.3
Bhattacharji <sup>11</sup> (1964)	164	14	8.5	50	30.5	56	34.2	44	26.8	-	-
Wagh and Swamy <sup>12</sup> (1964)	552	97	17.6	215	39	143	25.9	94	17	3	0.5
Mehrotra <sup>13</sup> (1972)	150	15	10	72	48	35	23.3	25	16.7	3	2
Muzaffar <sup>14</sup> (2005)	260	0	0	33	12.7	102	39.2	125	48.1	-	-
Saraswathi <sup>15</sup> (2011)	409	6	1.5	85	20.8	116	28.4	137	33.5	65	15.8
Present	50							44	88	06	12

The most common bleeding pattern was menorrhagia (64%) followed by polymenorrhoea (28%), metrorrhagia (18%) and menometrorrhagia (8%) (Table 5).

The most common presenting symptom was pain abdomens (28%) followed by dysmenorrhoea (16%), and back ache (2%) (Table 6).

## DISCUSSION

Abnormal uterine bleeding continues to be one of the most common and perplexing problems in gynaecological practice. It may present at any age between puberty and menopause. The highest incidence of AUB was noted in the 41-50years age group in the present study which is in concordance with the results of the studies by Anusuya

Das and Bhattacharji whereas Sutherland, Muhammed Muzaffar, Doraiswami Saraswathi reported maximum incidence in 41-50 years age group and Mehrotra et al, Wagh and Swamyand Dawn reported maximum incidence in 21-30 years age group.<sup>10-16</sup>

Considering these discrepant observations, one may conclude that, any age after menarche is not exempt from AUB. The highest incidence of AUB was seen in the reproductive age group (21-40 years) in the present study (60.5%) which is in concordance with the results of the studies by Sutherland (58.5%) and Mehrotra VG et al (71.3%).<sup>9,13</sup>

**Table 8: Parity and abnormal uterine bleeding.**

Parity	Sadia Khan <sup>17</sup>		Present study	
	Number	%	Number	%
Nullipara	27	5.4	02	4
Multi-para	270	54	36	72
Grand multipara	203	35.6	12	24
Total	500	100	50	100

**Table 9: Comparative study of types of bleeding and AUB.**

Type of bleeding	Mehrotra VG <sup>13</sup>		Present study	
	Number	%	Number	%
Heavy menstrual bleeding (Menorrhagia)	78	52	32	64
Inter menstrual Bleeding (Metrorrhagia)	29	19.3	09	18
Heavy & prolonged bleeding (Menometrorrhagia)	0	0	04	08
Frequent menstrual bleeding (Polymenorrhoea)	39	26	14	28
Oligomenorrhoea	0	0	00	
Total	150	100	50	100

In the present study, the highest incidence of AUB was seen in multiparous (72%), which is in concordance with the results of the studies by Bhattacharji (46%), Devi PK (48.6%), Pillai (87%), Joshi and Deshpande (61.5%), Mehrotra VG et al (46%) and Sadia K (54%).<sup>11,13,17-20</sup> The lowest incidence was seen in nulliparous women in the present study which is in concordance with the results of the studies by Mehrotra et al (20%), Anusuya Das (18%), Joshi and Deshpande (21.2%), Bhattacharji (18.8%) and Sadia K (5.4%).<sup>10,11,13,17,20</sup> By these observations, it may be implied that incidence of AUB is highest in parous women in general 87.5% and multipara in particular 58%.

In the present study, heavy menstrual bleeding was the commonest type of bleeding (64%) followed by intermenstrual bleeding (18%), heavy and prolonged bleeding (8%), frequent menstrual bleeding (28%) and oligomenorrhoea (0%) in that order, whereas in the study by Mehrotra VG showed heavy menstrual bleeding was the commonest type of bleeding followed by frequent menstrual bleeding, inter menstrual bleeding and postmenopausal bleeding in that order.<sup>13</sup>

## CONCLUSIONS

In this study, 40 – 41 years of age group, multiparity and menorrhagia were more commonly associated clinical presentations with Abnormal uterine bleeding.

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