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Research Article

## VALIDATION OF ENDOMETRIAL CURETTAGE IN ABNORMAL UTERINE BLEEDING IN A TEACHING INSTITUTE OF CENTRAL INDIA: A PROSPECTIVE STUDY

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### ABSTRACT

**Background:** Abnormal uterine bleeding (AUB) is one of the common reasons for female patients to consult a gynecologist. AUB include bleeding from structural causes like polyps, endometrial hyperplasia, chronic endometritis, proliferative endometrium, fibroids, carcinoma and pregnancy related complication and dysfunctional uterine bleeding. **Methods:** A prospective study done in one year duration among 210 patients of 20-70 years age group. A tissue sample is taken after endometrial curettage and examined by a pathologist for various lesions. **The results:** Largest number of AUB patients were about 31-40 years age group. The most common cause of AUB is endometrial hyperplasia. AUB is found in more multiparous women and menorrhagia is a most common bleeding pattern.

**Conclusion:** Endometrial curettage is a sensitive tool for AUB diagnosis. Very little pathology can escape this investigating tool. It also avoids unnecessary hysterectomy.

**Keywords:** Abnormal Uterine Bleeding, Endometrial curettage, Hysterectomy, Menorrhagia, Dysfunctional Uterine Bleeding.

### INTRODUCTION

Abnormal uterine bleeding (AUB) is one of the common reasons for female patients to consult gynecologist<sup>1</sup>. AUB affects one-third of female at one or the other time in their life span. It is one of the leading causes of female morbidity and is of special concern in developing country as it adds to the causes of anemia which is already prevailing in women of our setup.

AUB include bleeding from structural causes like polyps, endometrial hyperplasia, chronic endometritis, proliferative endometrium, fibroids, carcinoma and pregnancy related

complication and dysfunctional uterine bleeding (DUB).<sup>2</sup> Term DUB is used when the cause of AUB is not organic; there are no demonstrable pelvic or systemic diseases and no anatomical lesion<sup>3</sup>. AUB denote any bleeding which does not fill the criteria of normal bleeding. AUB in itself is not a disease but it denotes the underlying pathology responsible for it. AUB may be the most common presenting complaint in patients with pre-malignant or malignant endometrial lesion<sup>4</sup>.

Various diagnostic techniques are available for

evaluation of AUB which include USG, endometrial biopsy, hysteroscopy, dilatation and endometrial curettage (EC) etc<sup>5</sup>. Out of them EC is most effective as even small focal lesion can also be picked up, thus allowing few pathologies to escape. Also it is used when cervical os is stenotic and also as a therapeutic procedure in DUB when medical treatment fails<sup>6,7</sup>. The endometrial curettage technique is now considered as a fine line diagnostic tool because of its diagnostic accuracy, safety, quickness and convenience<sup>8</sup>.

Many women with AUB may undergo unwanted hysterectomy without a definitive diagnosis. Endometrial curettage is sensible and the safest method for diagnosis and evaluation of AUB. Early diagnosis for cause of AUB is crucial as various uterine pathologies can be picked up and timely treatment can improve patient's quality of life.

Menorrhagia is regular ovulatory cyclical bleeding which is excessive in amount (>80ml) or time (>5days), and metrorrhagia is anovulatory irregular unpredictable bleeding<sup>9</sup>.

This study was done to evaluate the role of E.C. in AUB and incidence of various pathologies in different age groups.

## MATERIAL AND METHODS

This prospective study was conducted in our medical college and attached Hospital during a period of two years (January 2012 to December 2012). Total 210 subjects of age group 15-70 years were selected for the study from

Gynaecology OPD. Detail history was taken and drug history was emphasized (so as to eliminate the drug side effect). This study was approved by the Institutional Ethics Committee. The detailed information sheet was provided both in English and in local language to all participants and written consent was taken.

Inclusion criteria: patients of age 15-70 years presenting to gynecology OPD with complaint of AUB for more than 4 months

Exclusion Criteria: Patients diagnosed as systemic diseases, genital tuberculosis, IUCD in situ, incomplete history, bleeding and coagulation defects, pregnancy, on an anti-platelet drugs.

General examination and routine investigations like, BT/CT, blood count, x-ray chest etc. were done. USG abdomen Pelvis was also performed by expert Sonologist. Endometrial curettage performed by a gynecologist after admitting the patient.

The tissue sample obtained was sent to pathology department in 10% formalin and after routine processing tissue sections of 4-6 microns were cut and stained with eosin and hematoxylin and subsequently seen under light microscope by two different pathologists so as to avoid observer bias.

The findings were arranged in tables using Microsoft excel sheet.

## RESULTS

Total 210 patients were included in the study. Age of the patients ranged between 14-70 years, with a mean age of 39.6 yrs.

**Table.1: Demographic distribution of patients according to age**

Age groups (years)	Number of patients	Percentage
< 20	17	8.09%
21-30	45	21.43%
31-40	71	33.80%
41-50	54	25.70%
> 50	23	10.95%
<b>Total</b>	210	-

The largest number of patients of AUB belonged to 31-40 years, the second largest is 41-50years.

**Table.2: Distribution of patients according to parity**

Parity	No of patients	Percentage
Nullpara	18	8.57
Primi	25	11.90
Multipara(1-3)	128	60.95
Grand multipara (>4)	39	18.57
Total	210	

The above table shows that AUB is more common in multiparous patients (128 patients, 60.95%).

**Table.3: Distribution of patients according to bleeding pattern in AUB**

Bleeding pattern	No of patients	Percentage
Menorrhagia	90	42.85
Metrorrhagia	59	28.09
Poly menorrhagia	25	11.90
Postmenopausal bleeding	22	10.47
Intermenstrual bleeding	14	6.66
Total	210	

The above table shows that the most common bleeding pattern is menorrhagia (42.85%) followed by metrorrhagia (28.09%), and polymenorrhagia.

**Table.4: Histopathological findings**

Pathology	No of patients	Percentage
Proliferative endometrium	51	24.28
Endometrial hyperplasia	88	41.90
Pregnancy complications	29	13.80
Endometrial polyp	12	5.71
Chronic endometritis	15	7.14
Fibroids	10	4.76
Carcinoma Endometrium	5	2.38
Total	210	

It shows that most common pathological finding in AUB patients is endometrial hyperplasia (41.90%) followed by proliferative endometrium (24.28%), pregnancy complication, chronic endometritis, endometrial polyp.

## DISCUSSION

AUB continues to be one of the most frequently encountered and significant morbidity in gynaecological OPD<sup>10</sup>. As endometrium is dynamic and hormonally sensitive and responsive tissue which constantly undergoes

changes throughout the reproductive life, therefore is vulnerable for pathological lesions. Endometrial curettage is the most common mean for assessing AUB. In this procedure scrapping of the endometrial lining and histopathological

examination of tissues is done without injuring the nearby structures this is well accepted by patients. Whereas in the hysterectomy whole uterus is removed and also there are chances of operative co-morbidity therefore hysterectomy is reserved as final procedure.

The most susceptible age group to AUB in the present study was 31-40 yrs with 33.80% of patients. Ara and Roohi noted maximum (59.02%) number of patients in perimenopausal group<sup>11</sup>. Doraiswami et al noted in 41-50 yrs age group with 33.5% patients<sup>12</sup>. Rajesh Patil et al found maximum number (45.26%) of patients in 31-40 yrs group<sup>13</sup>. The incidence is lower in adolescent girls as mostly abnormal bleeding in that age group resolve spontaneously.

We found a maximum incidence (60.95%) of AUB in multiparous women. A similar result was also found by Rajesh Patil et al with a percentage of 71.58%<sup>13</sup>. Other authors like Pilli et al<sup>14</sup>, Mehrotra et al<sup>15</sup>, Joshi S.K. & Deshpande D.H<sup>16</sup> also found the similar results.

Most common bleeding pattern was found to be menorrhagia in 90 patients (42.85%) followed by metrorrhagia in 59 patients (28.09%), polymenorrhagia (11.90%), post menopausal bleeding (10.47%) . Similar results were found by Moghul N<sup>17</sup> where they were 48%, 41%, 1.3% and 6% respectively. Our result values are also nearer to results found by Mehrotra VG et al<sup>15</sup> and Pilli et al<sup>14</sup>.

We found endometrial hyperplasia as a most common pathological lesion on histopathology (41.90%), followed by proliferative endometrium (24.28%). Ara and Roohi<sup>11</sup> noted hyperplasia in 27.95% of cases. Vakiani et al<sup>18</sup> noted hyperplasia in just 5.5% of patients.

## CONCLUSIONS

According to our study, the most susceptible age group is 31-40 yrs. Multiparity is also an important risk factor for the development of abnormal uterine bleeding. Commonest bleeding pattern found was to be menorrhagia. Endometrial hyperplasia is the commonest

pathological finding in relation to abnormal uterine bleeding.

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