



CLINICAL, HYSTEROSCOPIC AND HISTOPATHOLOGICAL EVALUATION OF WOMEN WITH ABNORMAL UTERINE BLEEDING IN REPRODUCTIVE AND PERIMENOPAUSAL AGE GROUP

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Conflicts of Interest: Nil

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Abstract:

Background: AUB is one of the most challenging and common problems presenting to the gynaecologists. A rationale approach and accurate diagnosis is important for proper treatment modality. It was an observational study done from April 2014 to March 2015. 112 patients presenting with AUB were included in the study. Clinical, hysteroscopy and histopathological study was done after excluding puberty menorrhagia, postmenopausal bleeding, pregnancy related bleeding, bleeding dyscrasias and endocrine disorders.

Results: Out of 112 women in this study 66% (74) were in the age group of 36-50 years, 26.8% (30) were in the age group of 21-35 years and 7.1% (8) were in the age group of >51 years. In this study 48.2% (54) of women were para 2, 28.6% (32) had parity of more than 3, 17.9% (20) were para 1 and 5.3% (6) of women were nulliparous. This shows incidence of abnormal uterine bleeding increases as the parity increases. In this study 62.5% (70) of women presented with menorrhagia, 30.35% (34) had metrorrhagia and 7.1% (8) of women presented with polymenorrhagia. There was no case of oligomenorrhoea. Clinically 50% (56) of women had dysfunctional uterine bleeding, 30.35% (34) had uterine leiomyomas, 8.9% (10) had polyps and 7.14% (8) had adenomyosis. On hysteroscopic examination 30.35% (34) of women had fibroid, 28.6% (32) had endometrial hyperplasia, 10.7% (12) of women had endometritis and 8.9% (10) women had endometrial polyp. Endometrium appeared normal in 21.42% (24) of women. Histopathological reports revealed that endometrium was proliferative in 30.35% (34) and secretory in 23.21% (26) of women. Endometrial hyperplasia was seen in 28.6% (32) of women. Endometritis was seen in 10.7% (12) of women and adenomyosis in 7.14% (8) of women.

Conclusion: hysteroscopy and histopathological examination is the gold standard for diagnosis of AUB.

Key words: Abnormal uterine bleeding, Hysteroscopy, Histopathological examination, Endometrial Biopsy, Endometrial Hyperplasia.

Introduction

Abnormal uterine bleeding is a symptom and not a disease. Abnormal uterine bleeding (AUB) is defined as changes in frequency of menstruation, duration of flow or amount of blood loss.¹ It occurs in various forms. Abnormal uterine bleeding may be categorised into two broad categories: the first is due to organic causes; the second is the so called dysfunctional uterine bleeding, caused usually by anovulation or oligo-ovulation. In 2011, the International Federation of Gynaecology and Obstetrics (FIGO) published a new classification system (PALM COEIN) for abnormal uterine bleeding which was also endorsed by American college of Obstetrician-Gynaecologists.

PALM COEIN CLASSIFICATION

- Palm: Structural causes
- Polyp
- Endocervical
- Endometrial

- Adenomyosis
- Leiomyoma
- Submucosal
- Other fibroids
- Malignancy and hyperplasia
- Endometrial hyperplasia
- Hyperplasia with atypia
- Endometrial carcinoma
- CoeIN: Non-structural causes
- Coagulopathy
- Inherited bleeding disorder
- Von Willebrand's disease
- Anticoagulant use
- Liver failure
- Ovulatory dysfunction
- Physiological
- Female athlete triad
- Hypothalamic dysfunction
- Thyroid disorder
- Hyperprolactinemia

- Pituitary disorder
- Primary ovarian insufficiency
- Endometrial
- Hormonal imbalance
- Endometrial atrophy
- Iatrogenic
- Endogenous hormone use
- Anticoagulant therapy
- Not yet classified

AUB is also seen in association with uterus didelphys or bicornis, infection like pelvic peritonitis, salpingo-oophritis and cellulitis, endometriosis and trauma and genital malignancies.

Dysfunctional uterine bleeding covers all forms of abnormal bleeding for which an organic cause cannot be found. Dysfunctional uterine bleeding occurs most commonly at the extremes of reproductive age (20% of cases occur in adolescence and 40% in patients over age 40).² Dysfunctional uterine bleeding can be classified according to whether it is ovulatory or anovulatory. Ovulatory bleeding includes polymenorrhoea and polymenorrhagia. Anovulation or oligo-ovulation is the commonest cause of abnormal uterine bleeding when no cause has been found.² In the reproductive age group AUB is more due to organic causes or post abortal or post delivery DUB. In perimenopausal and menopausal age group endometrial hyperplasia and endometrial carcinoma have to be excluded. 5 to 30% cases occur in premenopausal women especially if there are associated risk factors like obesity, diabetes, nulliparity or polycystic ovarian syndrome.

Several terms are used to describe various patterns of AUB. Menorrhagia is defined as bleeding with normal intervals but with heavy flow but duration is increased (21-35 days cycle, more than 80 ml, duration more than 7 days). Polymenorrhea is cyclical bleeding which is normal in amount but occurs at too frequent intervals of less than 21 days. Metrorrhagia is acyclical bleeding which occurs irregularly or continuously between normal cycles. Menometrorrhagia is bleeding which occurs at irregular, noncyclical intervals and heavy flow.

Abnormal uterine bleeding is considered as one of the most common and challenging problem presenting to the gynaecologist and is responsible for one-third of all patient gynaecological visits.^{3,4} AUB, in addition to physical effects also causes psychological problems and women tend to go from one gynaecologist to another in search of treatment and sometimes land up in unnecessary hysterectomy.

According to the center for disease control and prevention in United States about 5 per 1000 women undergo hysterectomy annually in USA and about 1 in 4 women will have hysterectomy by the age of 60 years.⁵ Proper

evaluation of patients can decrease the number of hysterectomies performed for AUB.

Once other causes of AUB are excluded clinically and by investigations, AUB of uterine origin needs diagnostic hysteroscopy, endometrial biopsy and histological examination of the submitted endometrial tissue for the assessment of abnormal uterine bleeding. By hysteroscopy whole uterine cavity can be visualized and polyps, hyperplasia, submucous fibroid and even suspicious areas for endometrial carcinoma can be seen directly and directed biopsy can be taken. In addition, hysteroscopic and histopathological diagnosis facilitates the implementation of optimal treatment strategies⁶ and minimizes unnecessary hysterectomy.

Material and Methods

This observational hospital based study was conducted in the Postgraduate Department of Obstetrics and Gynaecology, Government Medical College Srinagar over a period of one(1) year from April 2014 to March 2015. Objective of study was to ensure a rational approach to AUB by clinical, hysteroscopy and histopathological examination so that an accurate diagnosis is formed and treatment is planned accordingly. 112 patients presenting with AUB in reproductive and perimenopausal age group in our Hospital during this period were included in the study. Women with bleeding due to pregnancy related complications such as abortions, gestational trophoblastic disease or ectopic pregnancy and clinically diagnosed cases of local lesions like carcinoma cervix, vulval or vaginal lesions, were excluded from the study. Puberty menorrhagia and postmenopausal bleeding were also excluded from the study. Patients with systemic, endocrine or haematological disorders and patients on hormone therapy were also excluded.

Information was collected regarding age, parity, medical history, obstetric history, drug history, past menstrual history, clinical features and menstrual complaint at present. General physical and bimanual examination was done. Investigations including complete blood picture, kidney function test, liver function test, transvaginal and transabdominal ultrasound was done and a clinical diagnosis was made. After ethical clearance and written informed consent patients were subjected to hysteroscopy and endometrial biopsy. Hysteroscopic findings were noted and endometrial biopsies were sent to department of pathology for histopathological examination.

Statistical Analysis:

The software used for data analysis was SPSS Version 16.

RESULTS:

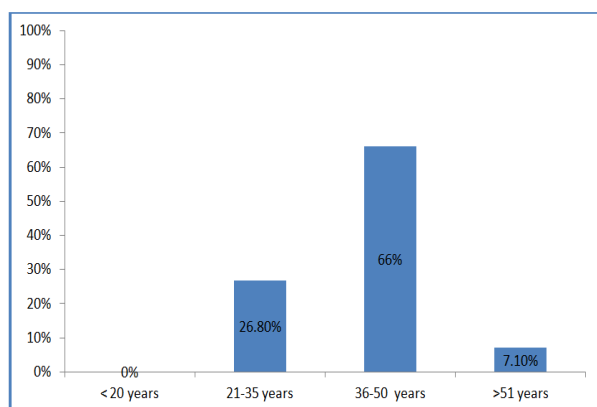


Figure 1: Patients in different age groups

Out of 112 women in this study 66% (74) were in the age group of 36-50 years, 26.8% (30) were in the age group of 21-35 years and 7.1% (8) were in the age group of >51 years.

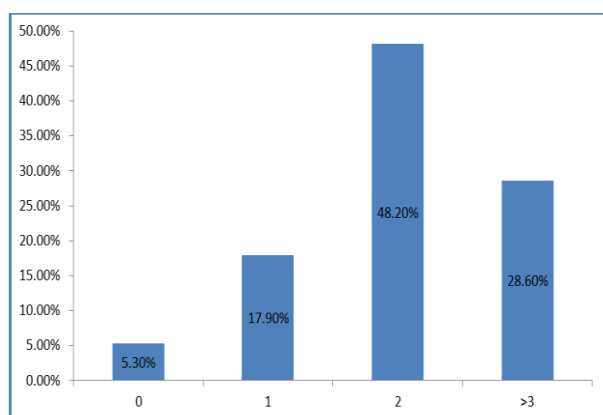


Figure 2: Correlation of parity with AUB

In this study 48.2% (54) of women were para 2, 28.6% (32) had parity of more than 3, 17.9% (20) were para 1 and 5.3% (6) of women were nulliparous. This shows incidence of abnormal uterine bleeding increases as the parity increases.

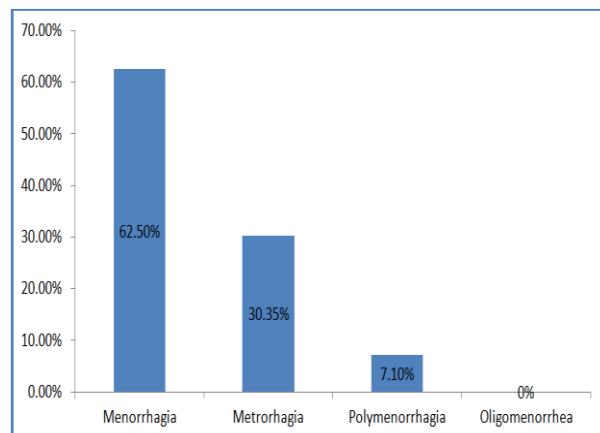


Figure 3: Different bleeding patterns in AUB

In this study 62.5% (70) of women presented with menorrhagia, 30.35% (34) had metrorrhagia and 7.1% (8) of women presented with polymenorrhagia. There was no case of oligomenorrhea.

Table 1: Clinical diagnosis of AUB

Diagnosis	No. of cases	%age
DUB	59	52.67%
Fibroid	34	30.35%
Polyp	7	6.25%
Adenomyosis	8	7.14%
Fibroid+DUB	4	3.5%

Clinically 52.67% (59) of women had dysfunctional uterine bleeding, 30.35% (34) had uterine leiomyomas, 6.25% (7) had polyps and 7.14% (8) had adenomyosis.

Table 2: Hysteroscopic findings

Findings	No. of patients	%age
Fibroid	34	30.35%
Endometrial Hyperplasia	32	28.6%
Endometritis	12	10.7%
Polyp	10	8.9%
Normal	24	21.42%

On hysteroscopic examination 30.35% (34) of women had fibroid, 28.6% (32) had endometrial hyperplasia, 10.7% (12) of women had endometritis and 8.9% (10) women had endometrial polyp. Endometrium appeared normal in 21.42% (24) of women.

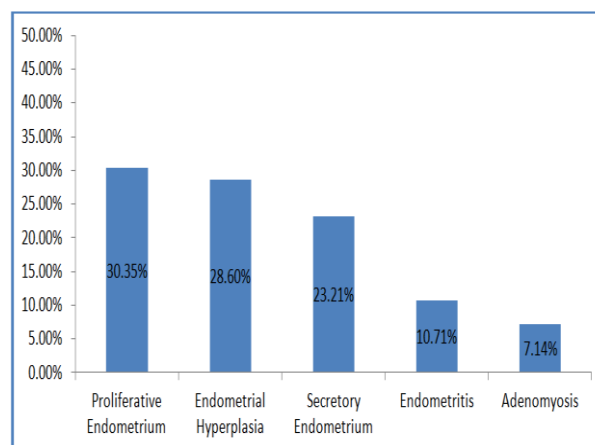


Figure 4: Endometrial pattern in AUB

Histopathological reports revealed that endometrium was proliferative in 30.35% (34) and secretory in 23.21% (26) of women. Endometrial hyperplasia was seen in 28.6% (32) of women. Endometritis was seen in 10.7% (12) of women and adenomyosis in 7.14% (8) of women.

Table 3:

Finding	<20 yrs	21-35 yrs	36-50 yrs	>51 yrs
DUB	0	10	42	4
Fibroid	0	12	20	2
Endometritis	0	2	9	1
Polyp	0	6	3	1
Total	0	30	74	8

The above table shows that in the age group of 21-35 years, most common finding was fibroid (12) followed by DUB (10). In the age group 36-50 years, most common finding was DUB (42) followed by fibroid (20). In the age group of >51 years most common finding was DUB (4).

Discussion

In our study abnormal uterine bleeding was predominantly seen in age group of 36-50 years i.e 66% followed by age group of 21-35 years i.e. 26.8%. The incidence was 59.02% and 36.64% in study conducted by Sarwat et al.⁷ and 70% and 25% in study conducted by Kauntiz et al⁸ in same age groups. The incidence of AUB was high as age increases.

The incidence of abnormal uterine bleeding was high as the parity increases in our study and is comparable to the study conducted by Bhosle et al.⁹

The commonest pattern of bleeding in our study was found to be menorrhagia i.e. 62.5% followed by metrorrhagia 30.35% and polymenorrhagia in 7.1%. This incidence is comparable to the study conducted by Muzzafar et al.¹⁰

Clinically diagnosis of dysfunctional uterine bleeding was made in 52.6% of cases and fibroid in 30.35% of cases, and endometrial polyp in 6.25%. Adenomyosis was found in 8.9% of cases. The results were comparable to study conducted by Bhosle et al.⁹

Hysteroscopic findings in this study were fibroid in 30.35%, endometrial hyperplasia in 28.65%, endometritis in 10.7% and polyp in 8.9% which were comparable to the study conducted by Kathuria et al.¹²

In this study the incidence of proliferative endometrium and secretory endometrium were 30.35% and 23.21% which was comparable to the study conducted by Layla et al.¹¹

On histopathological examination, the incidence of endometrial hyperplasia was 28.6% which was higher as compared to the study conducted by Dangal et al.(10.7%)¹³. The incidence of endometritis was 10.7% which was comparable to the study conducted by Dangal et al.(6%)¹³. Clinical diagnosis of fibroid and polyp was confirmed by hysteroscopy and in addition in almost 2% of

cases, polyp was diagnosed on hysteroscopy which was missed by clinical diagnosis. Endometritis and endometrial hyperplasia found on hysteroscopy was confirmed by histopathological examination. Patients in our study were treated either by hormones, hysteroscopic removal of polyp, curettage and only some needed hysterectomy.

Conclusion

AUB is one of the most common and challenging problems and needs thorough evaluation to reach a diagnosis so that proper treatment is initiated and unnecessary hysterectomies are avoided. Our study revealed that AUB increases with age and parity. Benign lesions like fibroid, proliferative and secretory endometrium were seen in most patients in reproductive age group. Dysfunctional uterine bleeding also was more common finding in these patients and needed hormone therapy thus avoiding hysterectomy. Endometrial hyperplasia is a precursor of endometrial carcinoma and needs close monitoring. Hysteroscopy is gold standard for diagnosis of AUB along with histopathology. Hysteroscopy with biopsy provides most comprehensive evaluation of the endometrium as it allows direct visualization of endometrial cavity and facility of directed biopsy. Hence in patients with AUB in addition to clinical findings and USG, hysteroscopy with histopathological examination is recommended to reach proper diagnosis.

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