Clinical study on Abnormal uterine bleeding in a Tertiary care hospital in Kashmir valley

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Abstract

Introduction: Abnormal uterine bleeding (AUB) is defined as any type of bleeding in which the amount, duration, frequency and cyclicity is abnormal for a patient. In 2011, the FIGO classification system (PALM-COEIN) was published in order to standardize terminology, diagnosis and investigations in women presenting with AUB.

This research provides the clinical basis for judgement of etiology of AUB and gynaecological OPD composition through an observational study of women presenting with complaints of abnormal uterine bleeding.

Materials and method: A retrospective observational study was carried out from September 2020 to January 2022. The study was conducted at LD Hospital, a tertiary care hospital in Kashmir valley. A total of 100 patients were selected as per the inclusion criteria for the study. The relevant data I e. age, presenting complaints, diagnostic modality and type of AUB; was documented from hospital records and analysed.

Results: AUB O was the most common type of AUB, with PCOS being the main etiological factor among AUB O. Menorrhagia was the most common symptom with which women presented to the OPD. USG emerged as the single most useful diagnostic modality which helped in the diagnosis of AUB including AUB O.

Conclusion: AUB O is the most common type of AUB affecting Kashmiri women. PCOS which is on the rise among women in Kashmir valley emerged as the single most common etiological factor among AUB O.

Keywords: Abnormal uterine bleeding, menorrhagia, PCOS.

Introduction

Abnormal uterine bleeding (AUB) is one of the most common conditions for which women visit gynaecological OPD (1).Abnormal uterine bleeding (AUB) is defined as any type of bleeding in which the amount, duration, frequency and cyclicity is abnormal for a patient.(2) In 2011, the FIGO classification system (PALM-COEIN) was published in order to standardize terminology, diagnosis and investigations in women presenting with AUB (3) The classification system includes nine categories, organised under the acronym ''PALM-COEIN''. PALM group includes five structural aetiologies of AUB that can be diagnosed with ultrasound and/or histopathology (polyp, adenomyosis, leiomyoma, malignancy, and hyperplasia). COEIN group includes non-structural entities i.e., coagulopathy,

ovulatory dysfunction, endometrial, iatrogenic, and not yet classified. This research provides the clinical basis for judgement of etiology of AUB and gynaecological OPD composition through an observational study of women presenting with complaints of abnormal uterine bleeding.

Materials and method

A retrospective observational study was carried out from September 2020 to January 2022. The study was conducted at LD Hospital, a tertiary care hospital in Kashmir valley. A total of 100 patients were selected for the study. The relevant dataie. age, presenting complaints, diagnostic modality and type of AUB; was documented from hospital records. Only those patients were selected for the study whose records were complete.

Sampling: Convenience sampling method

Inclusion criteria

1. Age15-55 years

2. Abnormal uterine bleeding with complete hospital records

Exclusion criteria

1. Pregnancy

2. Vaginal bleeding caused due to cervical or vaginal cause

3. Chronic liver disease

4. Chronic renal disease

5. Non endometrial malignancy

Results

Total number of patients in the study =100.

Table 1: Age and AUB

Age	Number of patients	Percentage %
</= 20	19	19%
21- 30	29	29%
31-40	33	33%
>/= 41	19	19%
Total	100	100%

Most patients having AUB belong to the age group of 31 – 40 yrs, (33%), with women in age group of 21 -30 yrs being the second highest, (29%). AUB O was the most common cause of AUB in both these age groups.

Table 2: Clinical presentation of AUB

Clinical presentation	No. Of patients	Percentage
Menorrhagia	34	34%
Polymenorrhea	8	8%
Polymenorrhagia	25	25%
Oligomenorrhea	16	16%
Hypomenorrhea	3	3%
Metro Hagia	3	3%
menometrohagia	7	7%
Oligo + hypomenorrhea	4	4%
Total	100	100%

Most common clinical presentation of patients with AUB was menorrhagia (34%), which was either increase in duration >8 days or flow >80 ml / day. This was followed by polymenorrhagia (25%) which was mainly due to PCOS, AUB O.

Table 3: Diagnostic modality in AUB

Diagnostic modality	No. Of patients	Percentage %
USG	56	56%
Endometrial biopsy	9	9%
History	8	8%
Blood tests	17	17%
Local examination	1	1%
USG + local examination	1	1%
Exclusion	7	7%

Among the various diagnostic modalities, ultrasound emerged as the main diagnostic modality which was useful in reaching the definitive diagnosis of AUB. Although history, examination, blood examinations

(hormonal profile ie. FSH, LH, TSH, PRL) also proved to be an adjunct to diagnosis of AUB along with USG. However, USG was found to be the single most powerful modality which could diagnose the aetiology of AUB in maximum cases (56%).

The most common type of AUB was found to be AUB O (49%), followed by AUB L (12%). AUB O is a heterogenous group consisting of varied etiologies which contributes to its large percentage in women presenting with AUB.

Table 4: Type of AUB

TYPE OF AUB	No. of patients	Percentage
AUB P	6	6%
AUB A	10	10%
AUB L	12	12%
AUB M	6	6%
AUB C	0	0%
AUB O	49	49%
AUB I	7	7%
AUB E	8	8%
AUB N	0	0%
AUB A+P	1	1%
AUB A+L	1	1%

Table 5: Type of AUB O

Type of AUB O	No. Of patients
Polycystic ovarian syndrome	21
Hyperprolactinemia	3
Endometrioma	2
Ovarian cyst	7
Anovulation	6
Hypothyroidism	10
Total no. of patients	49

AUB O has various etiologies and among them polycystic ovarian syndrome was the most common cause and accounted for 21%. This was followed by hypothyroidism (10%).

Table 6: Diagnostic modality in each type of AUB

AUB	USG	Endometrial biopsy	History	Blood tests	USG +Local examination	Local examination	Exclusion
AUB P	6						
AUB A	10						
AUB L	11				1		
AUB M		6					
AUB O	28	3	1	17			
AUB I			7				
AUB E						1	7
AUB A +P	1						
AUB A+L	1						

Ultra sound was the most powerful modality in the diagnosis of AUB. Along with diagnosing the structural component of AUB I e. PALM, it proved to be the main diagnostic modality in women who has PCOS, in case of AUB O. Although history, and blood tests were also useful adjuncts in diagnosis of PCOS; ultrasound remained as the main diagnostic modality for diagnosis of PCOS. In addition it diagnosed endometriomas as well as ovarian cysts.

Discussion

Abnormal uterine bleeding is the most common presenting symptom in the gynaecological OPD, in women belonging to the reproductive age group. In this study we observed that AUB was more common in women of age group 31 - 40yr, (33%). This coincides with result of study conducted by Preeti et al (4) in which 31.8 % women belonging to the age group of 30 – 39 yrs presented with AUB. Also, in the study conducted by T. Lakshmi et al. (5) 44% of women suffering from AUB belonged to the age group of 31 – 40 years. The higher incidence of AUB in this age group indicates that these patients are in an age group where various structural causes and hormonal imbalances lead to abnormal uterine bleeding and affect the quality of life.

Menorrhagia is defined as increased menstrual bleeding which may be more in quantity, > 80ml or duration > 8 days. It has profound health implications as it causes anaemia and affects the normal daily work of women which may lead to financial loss as well as mental health issues. It was found to be the commonest bleeding pattern and it accounts for about 34% of study population. The results obtained correlates with the studies of Bharti Amp Rathi et al (6) (32%), Nidhi kolchela et al [7] (32%). Majority of the studies had reported the same.

In this study the main diagnostic modality that aided in diagnosis of AUB was USG pelvis. Diagnosis was confirmed in 56% of patients using USG Pelvis. In This study USG Pelvis followed by blood tests (hormonal profile) were the most commonly used diagnostic procedures for confirming the etiology of AUB. Similar results were seen in the study done by T. Lakshmi suseesal et al (5) in which74% patients were confirmed with AUB using USG Pelvis& Thyroid profile test . In addition to diagnosing structural causes of AUB, it aids in the diagnosis of PCOS, and identifying any misplaced IUCD, endometrial hyperplasia, which further needs conformation by biopsy. Thus in every case of AUB, advising a pelvic USG is indispensable.

The most common type of AUB observed in this study was AUB O (49%). The bleeding in the proliferative phase and in the secretory phase may be due to anovulatory cycles and ovulatory dysfunctional uterine bleeding respectively. Our study correlated well with study done by Singh P.B. et al (4) in which AUB-O was the most common cause (55.2%). Also, in the study conducted by S.B. Ahmed et al (8), AUB O was the most common cause (28%). Thus, hormonal profile (TSH, Prolactin, LH, FSH) has to be adviced so that any cause of AUB O may not be missed and remain undiagnosed.

Among all causes of anovulation PCOS was the most common cause of AUB found in our study followed by hypothyroidism. PCOS is a heterogeneous disorder that is defined by a combination of signs and symptoms of androgen excess (hirsutism and/or hyperandrogenemia) and ovarian dysfunction. The prevalence of PCOS in premenopausal women ranges from ~6% (using the older, more restrictive criteria) to ~20% (when applying current, more inclusive definitions) [9], possibly making this syndrome the most common endocrine and metabolic disorder in women of reproductive age. The condition seems to be on a rise in Kashmir valley although systematic studies on the subject are still underway. [10]

Conclusion

AUB O was the most common cause of Abnormal uterine bleeding, and PCOS was the most common etiology in AUB O. Ultrasound emerged as the single most important diagnostic modality which can aids in the diagnosis of most etiogies of AUB, including AUB O.

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