



DESCRIPTIVE PATTERN OF MENSTRUAL INDEX VERSUS OLD TERMINOLOGY FOR FIGO CLASSIFICATION OF AUB

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ABSTRACT **Introduction:** Abnormal uterine bleeding (AUB) is defined as irregular bleeding from the uterine corpus where the pattern of menstruation is abnormal in regularity, frequency, volume, or duration.¹ According to Sharma et al study, the prevalence of AUB in India is reported to be around 17.9%.² Approximately, about one-third of patient visits to the gynecologist are for AUB and it accounts for more than 70% of all gynecological consults in the perimenopausal and postmenopausal years. AUB was classified as PALM COIEN, ie. Polyp Adenomyosis Leiomyoma Malignancy and hyperplasia-Coagulopathy, Ovulatory dysfunction, Endometrial, Iatrogenic, Not yet classified. The PALM COIEN classification gives the etiological classification. However, even with same etiology, the management is not the same in all cases of same etiology and thus the bleeding pattern is an important factor which needs to be classified as well. The old terminology gives the clinical classification of AUB, based on the bleeding pattern, however it fails to describe each of the 4 parameters of the menstrual index which may be deranged. Also, the classical terminology does not differentiate between menorrhagia which may be due to increase in volume of blood loss or duration of blood flow. Therefore a classification describing each of the parameters of the menstrual index is necessary to accurately describe the clinical presentation of the patient in order to decide the specific treatment modality of a particular etiology of AUB. **Objective:** The objective of the study is to describe the bleeding patterns in terms of the 4 parameters of the menstrual index according to the PALM COIEN classification of AUB, and compare the same with old terminology, in order to explain the superiority of the descriptive classification over old terminology. Also this classification plays a pivotal role in choosing the specific management for AUB of same etiology. **Materials And Methods:** A retrospective observational study was carried out from September 2020 to February 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 data was collected from hospital records. Only those patients were selected for the study whose records were complete. **Conclusion:** The description of bleeding pattern according to the 4 parameters of menstrual index gives more clarity regarding the bleeding pattern of the patient and in collaboration with the PALM COIEN classification of AUB, it provides better information in order to choose the treatment modality of the specific etiology of AUB.

KEYWORDS : AUB, PALM COIEN, Leiomyoma, Ovulatory dysfunction, Endometrial hyperplasia malignancy.

INTRODUCTION:

Abnormal uterine bleeding (AUB) is defined as irregular bleeding from the uterine corpus where the pattern of menstruation is abnormal in regularity, frequency, volume, or duration.¹ According to Sharma et al study, the prevalence of AUB in India is reported to be around 17.9%.² Approximately, about one-third of patient visits to the gynecologist are for AUB and it accounts for more than 70% of all gynecological consults in the perimenopausal and postmenopausal years.

Over the past decade it has become abundantly clear that many terms used to describe menstrual symptoms and causes of abnormal menstrual bleeding are ill defined and confusing.^{4,6} This situation has led to difficulties in interpreting the scientific and clinical literature, in reaching agreement on the use of various therapies, and in the establishment of acceptable clinical trials. There are 4 elements of a standard menstrual index, namely the menstrual duration, volume of blood loss, regularity and frequency of menstrual cycle. The old terminology referred to the bleeding patterns as menorrhagia, polymenorrhea etc. However, there has been an update to standardize descriptive terms, and menorrhagia, metrorrhagia, and oligomenorrhea have been replaced with the terminology of heavy menstrual bleeding (HMB), intermenstrual bleeding, and breakthrough bleeding [2]. However for clarity it may be best to describe the abnormal pattern of bleeding in terms of 4 parameters of the menstrual index, so that treatment may be given according to the relevant abnormal bleeding pattern. Also the classical terminology defining AUB contains terms that are not related to a particular pathological process [3]. As a result of this, the International Federation of Gynecology and Obstetrics (FIGO) introduced a novel classification system in 2011 to standardize AUB terminology, management and diagnosis.⁷

AUB was classified as PALM COIEN, ie. Polyp Adenomyosis Leiomyoma Malignancy and hyperplasia-Coagulopathy, Ovulatory dysfunction, Endometrial, Iatrogenic, Not yet classified. The PALM COIEN classification gives the etiological classification. However, even with same etiology, the management is not the same in all cases of same etiology and thus the bleeding pattern is an important factor which needs to be classified as well. The old terminology gives the clinical classification of AUB, based on the bleeding pattern, however it fails to describe each of the 4 parameters of the menstrual index which may be deranged. Also, the classical terminology does not

differentiate between menorrhagia which may be due to increase in volume of blood loss or duration of blood flow. Therefore a classification describing each of the parameters of the menstrual index is necessary to accurately describe the clinical presentation of the patient in order to decide the specific treatment modality of a particular etiology of AUB. A high level of agreement on terminologies was obtained following extensive discussion and use of an audience keypad responder system. It was strongly recommended that poorly defined and confusing terminologies such as *menorrhagia*, *metrorrhagia*, and *dysfunctional uterine bleeding* be abandoned.^{4,6} In their place should be substituted clear and simple terms that women and men in the general community could understand and could be easily translated into other languages.

Table 1 Menstrual Terminologies That Recent Agreement Indicates Should Be Discarded⁸

- Menorrhagia (all usages, including "essential menorrhagia," "idiopathic menorrhagia," "primary menorrhagia," "functional menorrhagia," "ovulatory or anovulatory menorrhagia")
- Metrorrhagia
- Hypermenorrhea
- Hypomenorrhea
- Menometrorrhagia
- Polymenorrhea
- Polymenorrhagia
- Epimenorrhea
- Epimenorrhagia
- Metropathica hemorrhagica
- Uterine hemorrhage
- Dysfunctional uterine bleeding
- Functional uterine bleeding

Recommended Terminology, Definitions, And Classifications Of Symptoms Of Abnormal Uterine Bleeding

AUB is the overarching term used to describe any departure from normal menstruation or from a normal menstrual cycle pattern. The key characteristics are regularity, frequency, heaviness of flow, and duration of flow, but each of these may exhibit considerable variability. The normal values of the 4 parameters of the menstrual index were taken as per international standards.⁸

REGULARITY: Regular = variation < 2-20 days

Irregular= variation >2 – 20 days

FREQUENCY: Normal = 24-38 days

Frequent =<24

Infrequent =>38

Menstrual duration : Normal= 4.5 – 8 days

Prolonged =>8 days Short =< 4.5 days

Volume of blood loss: Normal = 80 ml

Light =< 5ml Heavy => 80 ml

OBJECTIVE:

The objective of the study is to describe the bleeding patterns in terms of the 4 parameters of the menstrual index according to the PALM COEIN classification of AUB, and compare the same with old terminology, in order to explain the superiority of the descriptive classification over old terminology. Also this classification plays a pivotal role in choosing the specific management for AUB of same etiology.

MATERIALS AND METHODOLOGY:

A retrospective observational study was carried out from September 2020 to February 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 data was collected from hospital records. Only those patients were selected for the study whose records were complete.

Sampling: Convenience sampling method

Inclusion Criteria:

1. Age 15-55 years
2. Abnormal uterine bleeding with complete hospital records

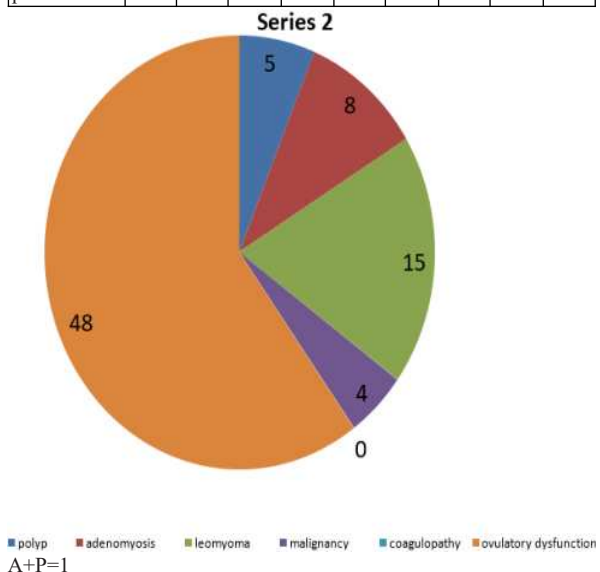
Exclusion Criteria:

1. Pregnancy
2. Vaginal bleeding caused due to cervical or vaginal cause
3. Chronic liver disease
4. Chronic renal disease
5. Non endometrial malignancy
6. Post menopausal bleeding

RESULTS:

Table 1: Type of AUB

AUB	P	A	L	M	C	O	I	E	N
No. of patients	5	8	15	4	0	48	8	10	0



M+L=1

Table 2: Bleeding Pattern According To Old Terminology

Bleeding pattern	No. of patients
Menorrhagia	40
Polymenorrhea	7
Polymenorrhagia	22
Oligomenorrhea	16
Hypomenorrhea	3
metrorrhagia	3
menometrorrhagia	7
Oligo+ hypomenorrhea	2
TOTAL	100

Table 3: Bleeding Pattern According To Old Terminology And FIGO classification:

Bleeding pattern	AUBP	A	L	M	O	I	E	A+P	M+L
Menorrhagia	1	2	12	2	15	3	3	1	1
Polymenorrhea	1				2	1	3		
Polymenorrhagia	1	5	3	1	8	2	2		
Oligomenorrhea					16				
Hypomenorrhea					3				
metrorrhagia		1			1	1			
menometrorrhagia	2			1	1	1	2		
Oligo+ hypomenorrhea					2				
TOTAL	5	8	15	4	48	8	10	1	1

Table 4: Bleeding Pattern According To 4 Parameters Of Menstrual Index And FIGO Classification

	P	A	L	M	O	I	E	A+P	M+L
Regularity									
Regular	3	7	14	4	26	7	9	1	1
Irregular	2	1	1	0	22	1	1	0	0
Frequency									
Normal	1	3	11	3	12	3	3	1	1
Frequent	4	4	3	1	12	5	7	0	0
Infrequent	0	1	1	0	24	0	0	0	0
Duration									
Normal	1	5	8	3	32	4	6	1	0
Prolonged	4	3	7	1	13	4	4	0	1
Short	0	0	0	0	3	0	0	0	0
Volume									
Normal	3	1	2	0	21	5	2	0	0
Heavy	2	7	13	4	20	3	7	1	1
Light	0	0	0	0	7	0	1	0	0

DISCUSSION:

Abnormal uterine bleeding is one of the frequently confronted complaints in the gynecology department. The contributing aetiologies may be physiological, pathological, or pharmacological. Precise clinical management demands that the primary cause is determined. Until the pathology of the underlying cause is diagnosed, a proper method of treatment is impossible. The ultimate goal of therapy is mitigation of the menstrual flow to reduce morbidity, thereby improving the quality of life of women. In our study 100 patients were included in the age group of 15-55 years who had complete records. According to the aetiological classification of PALM COEIN 5 patients had polyp, 8 adenomyosis, 15 leiomyoma, 4 malignancy, 48 patients had ovulatory dysfunction, 8 had iatrogenic cause and 10 patients had endometrial cause. None had coagulation abnormality. According to the old terminology 40 patients had menorrhagia, 22 polymenorrhagia, 16 oligomenorrhea, 7 polymenorrhea, 7 menometrorrhagia, 3 hypomenorrhea and 2 oligohypomenorrhea.

Bleeding pattern according to both old terminology and FIGO was also studied. Among 5 patients having polyp menorrhagia was found in 1 patient, polymenorrhagia in 1, polymenorrhea in 1 and menometrorrhagia in 2 patients. Out of 8 patients with adenomyosis 5 had polymenorrhagia, 1 metrorrhagia and 2 patients had menorrhagia. Out of 15 patients having leiomyoma 12 had menorrhagia and 3 polymenorrhagia. Out of 4 patients having malignancy 2 had menorrhagia, 1 polymenorrhagia and 1 metrorrhagia. Out of 48 patients having ovulatory dysfunction 15 had menorrhagia, 2 polymenorrhagia, 8 polymenorrhea, 16 oligomenorrhea, 3 hypomenorrhea, 1 metrorrhagia, 1 menometrorrhagia and 2 oligo plus hypomenorrhea. Hence Ovulatory dysfunction was the predominant cause of AUB.

Bleeding pattern according to the four parameters of menstrual index was also studied which included regularity, duration, frequency and

volume which is mentioned in the results in collaboration with PALM COIEN.

Dr. T. Lakshmi Suseela et al (Professor and HOD, Department of Obstetrics and Gynecology, Rajiv Gandhi Institute of Medical Sciences, Kadapa, Andhra Pradesh) conducted the study with around 1750 women attending gynecology O.P&IP departments, out of which 454 patients who have shown symptoms similar to AUB were screened and only 100 patients were confirmed with AUB through symptomatology and USG abdomen. Among 100 AUB patients, 54(54%) patients have Regular menstrual cycle and 46(46%) have Irregular menstrual cycle, 61(61%) patients experienced Menorrhagia, 20 (20%) patients experienced Poly menorrhea, 8(8%) patients experienced Metrorrhagia, 7(7%) patients experienced Menometrorrhagia, 4 (4%) patients experienced Oligomenorrhoe. (41%) subjects had etiology of Leiomyoma, 25(25%) have Endometrial as an etiology, 11(11%) subjects had etiology of Polyp, 10(10%) had etiology of Ovulatory Disorders, 7(7%) had etiology of Adenomyosis, 2(2%) had etiology of both Leiomyoma & Polyp, 2(2%) had etiology of Not yet classified. 1(1%) had etiology of Malignancy, None had etiology of Coagulopathy, 1(1%) had etiology of Iatrogenic, Pelvic Inflammatory Disease is seen in 21 (21%).

Preeti Bala singh et al conducted a study in the department of obstetrics and gynaecology AIIMS Gorakhpur UP in which a total of 116 patients were enrolled in the study. AUB-O was the most common diagnosis in 55.8% followed by AUB-L in 15.4%, AUB-P in 4.06%, AUB-A in 7.3%, AUB-M IN 5.6%, AUB-C IN 0.6%, AUB-E in 4.06% and AUB-N IN 7.7%

Sharda B Ahmed et al conducted a study in the department of obstetric and gynaecology at the American International Institute of Medical Sciences, Udaipur in which they studied 350 patients attending the hospital. 37.4% had heavy bleeding, 27% had irregular heavy bleeding and 22% had frequent bleeding. Ovulatory dysfunction was the most prevalent cause of AUB (28.2%) followed by AUB-L (25.7%), AUB-N (9.7%), AUB-P (2.5%), AUB-I (2.2%) and AUB-C (0.3%).

CONCLUSION:

The description of bleeding pattern according to the 4 parameters of menstrual index gives more clarity regarding the bleeding pattern of the patient and in collaboration with the PALM COIEN classification of AUB, it provides better information in order to choose the treatment modality of the specific etiology of AUB.

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