

Distribution of causes of abnormal uterine bleeding using the new FIGO classification system

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Abstract

Objective: To categorise all women with Abnormal Uterine Bleeding attending a tertiary care centre according to new classification system by the International Federation of Gynaecology and Obstetrics (FIGO).

Methods: The descriptive cross-sectional study comprised all non-gravid women of reproductive age with unpredictable, excessive duration, abnormal volume, and/or abnormal frequency of menses for at least 3 months coming to the outpatient department of Lady Willingdon Hospital, Lahore, from August 2010 to July 2011. The subjects underwent structured history, physical examination and pelvic ultrasonography. Endometrium and hysterectomy specimen were obtained for histopathology where applicable. Possible underlying causes were categorised according to the new classification system.

Results: A total of 2109 women comprised 19.6% of total of the 10712 woman who visited the gynecological outpatients clinic, 2109(19.6%) had abnormal uterine bleeding. PALM-COEIN categorization done in 991(47%) cases that showed 30(3%) polyp, 15(15%) adenomyosis, 250(25%) leiomyoma, 66(6.6%) malignancy and hyperplasia, 3(0.3%) coagulopathy, 236(24%) ovulatory dysfunction, 48(5%) endometritis, and 53(6%) iatrogenic. The remaining 155(15%) cases were uncategorised.

Conclusion: The classification should facilitate multi-institutional investigation into the epidemiology, etiology and treatment of women with Abnormal Uterine Bleeding.

Keywords: Abnormal uterine bleeding, Classification, Dysfunctional uterine bleeding, Menstrual disorders. (JPMA 63: 973; 2013)

Introduction

Abnormal Uterine Bleeding (AUB) is defined as bleeding from the uterine corpus that is abnormal in volume, regularity, and/or timing. It is described as 'chronic' if that has been present for the majority of the preceding 6 months, and 'acute' if sufficiently heavy bleeding necessitating rapid treatment/intervention. Intermenstrual bleeding (IMB) is defined as that which occurs between clearly defined cyclic and predictable menses and includes both randomly occurring episodes as well as those that manifest predictably at the same time in each cycle. AUB affects about 5-15% of women of reproductive age and probably higher percentage of women in older age groups.¹

For about a decade, there is a growing concern worldwide regarding the use of terminologies and definitions around the symptom of AUB and these are leading to increasing difficulties in designing multinational clinical trials and in the interpretation of isolated research studies.² There

have been several publications addressing this issue. In 2007 a publication proposed a method to reach a consensus under the title "process designed that leads to international agreement on terminologies and definitions used to describe abnormalities of menstrual bleeding".³ The major emphasis was on replacement of terms like 'Menorrhagia', 'Metrorrhagia', 'Hypermenorrhoea' and 'Dysfunctional Uterine Bleeding'. Use of simpler terms with clear meanings was recommended that have a potential to be understood by health professionals and patients alike and that can be translated into most languages. In 2011, a new system for the classification of AUB was approved by the International Federation of Gynecology and Obstetrics (FIGO) Executive Board as the FIGO classification system, which included contributions from an international group of clinician-investigators from 6 continents and over 17 countries.^{4,5} It is perceived that the new terminologies would facilitate the application of evidence-based research to clinical practice.⁶

This classification system is stratified into nine basic categories that are arranged according to the acronym PALM-COEIN: polyp, adenomyosis, leiomyoma, malignancy and hyperplasia, coagulopathy, ovulatory dysfunction, endometrial disorder, iatrogenic and not yet

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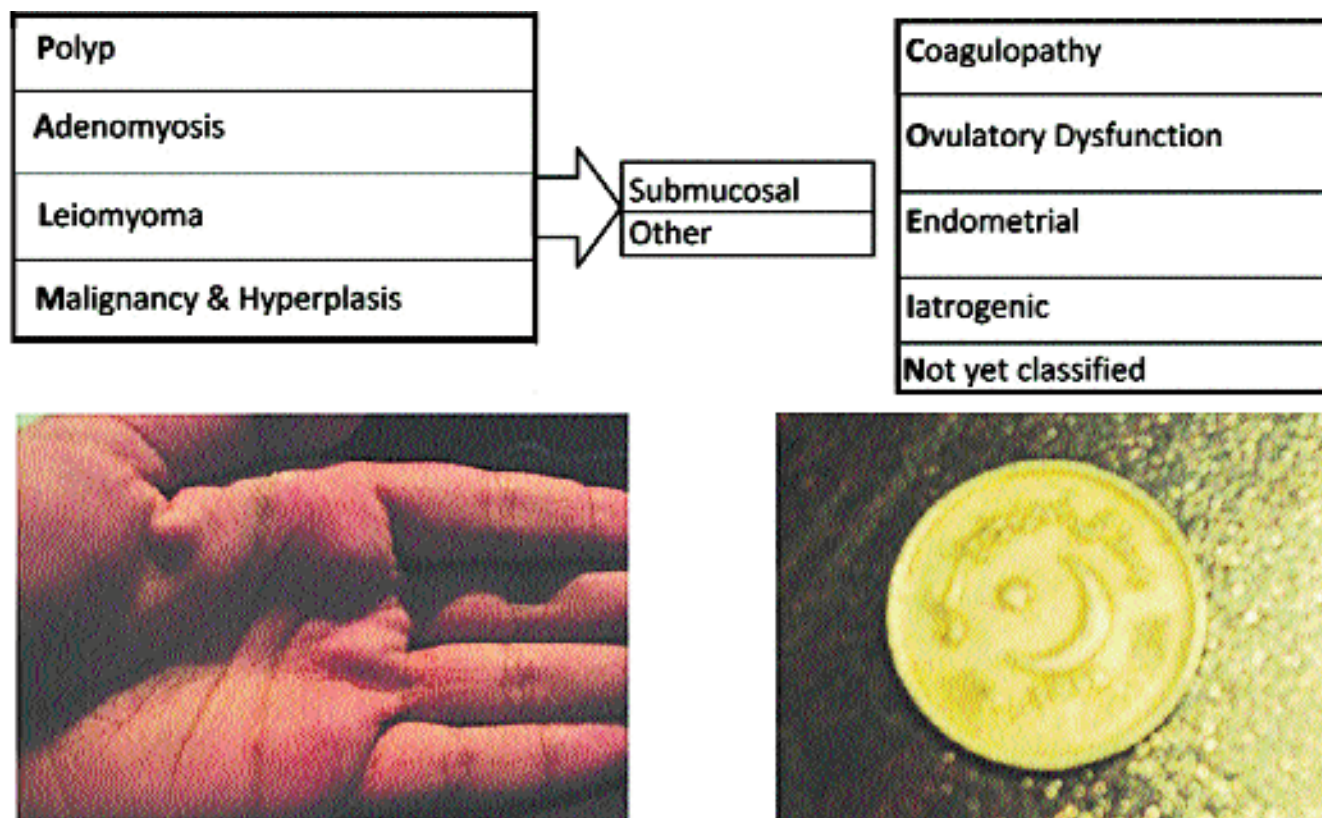


Figure-1: Adopted from Munro et al.[5] FIGO classification system (PALM-COEIN) for causes of abnormal uterine bleeding in non-gravid women of reproductive age.

classified (Figure-1). In general, well-defined structural entities, measurable visually by the use of imaging techniques and/or by the use of histopathology constitute the PALM group, while non-organic varieties not defined by imaging or histopathology comprise the COEIN group. This system recognises instances of contribution of more than one pathology in an individual symptomatic woman and also lack of contribution of a coincidental asymptomatic pathology towards AUB due to other cause(s).

The present study categorised women with AUB according to the PALM-COEIN classification system which is a step towards adopting new terminologies.

Patients and Methods

The descriptive cross-sectional study was conducted at the Lady Willingdon Hospital, Lahore, over a period of one year from August 2010 to July 2011. All non-gravid women of reproductive age (25-45 years) with unpredictable, irregular, excessive duration, abnormal volume, and/or abnormal frequency of menses and intermenstrual bleeding for at least the preceding months coming to the outpatient department (OPD) underwent

structured history, physical examination and pelvic ultrasonography. Women with obvious cervical cause for vaginal bleeding were excluded. Endometrium and hysterectomy specimen were obtained for histopathology where applicable. Possible underlying causes were categorised according to the PALM-COEIN classification system.⁷ 'Coagulopathy' was labeled for all previously known cases of defects of coagulation from younger age. 'Ovulatory dysfunction' was defined as unpredictable timing and variable amount of bleeding, while 'endometrial disorder' referred to cases when AUB occurred in line with predictable/cyclical pattern. No structural alteration could be appreciated in the uteri of the latter two categories. 'Iatrogenic' category was characterized by the identification of hormone-steroid intake during the preceding 3 months and/or onset of symptoms following contraceptive device or method. Data was analyzed by SPSS version 16 and descriptive statistics were presented as frequencies and percentages, and bar chart.

Results

A total of 10,712 women attended the gynaecological OPD for various complaints during the study period. Of

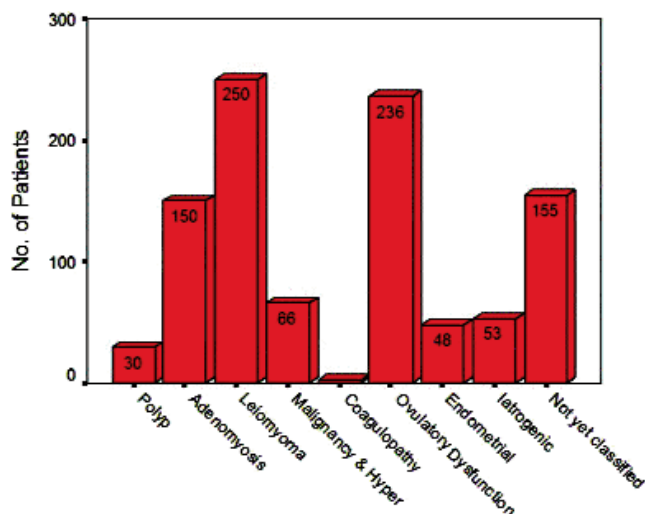


Figure-2: PALM-COEIN classification (n=991).

them, 2109(19.6%) presented with AUB. Of these women, 991 (47%) were included in the study. All these cases were placed in the nine categories of the PALM-COEIN classification (Figure-2). 'Leiomyoma' was the commonest (n=250; 25%) category. Simple ovarian cysts of sizes ranging from 3-5cm were sonographic findings associated in 89 (38%) of the cases labeled as 'ovulatory dysfunction' (n=236). Histopathology reports of endometria obtained (n=210) in this category were "Hormone Imbalance 78 (37%), Proliferative phase 50 (24%), Secretory phase 72 (34%), and atrophic endometrium 10 (5%). Inflammation of the endometrium i.e., endometritis was present in 18 (38%) cases of AUB due to 'endometrial disorder' (n=48).

Discussion

To reach a precise underlying etiology is imperative for successful treatment of AUB. Useful interpretation of results of various clinical and basic science research studies aiming at determining epidemiology, etiology, treatment and prognosis of AUB was hampered due to lack of consistent classification. Adoption of new terminologies in clinical practice would prove to be a milestone in effective management of these women. 'Leiomyoma' being the commonest cause of PALM categories of AUB is well established in literature.⁸ 'Dysfunctional uterine bleeding (DUB)' a now discarded term has significant health care

implications⁹ and its definitive treatment short of hysterectomy often haunts a clinician and researcher alike.^{10,11} Women considered to have DUB in the past actually fall in FIGO categories of a varying combination of coagulopathy, disorder of ovulation, or primary endometrial disorder leading to a primary or secondary disturbance in local endometrial haemostasis.

Conclusion

The new classification should facilitate multi-institutional investigation into the epidemiology, etiology and treatment of women with acute and chronic AUB. This will require periodic modification and revision based upon further research.

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