



## Figo's Palm-Coein Classification of Abnormal Uterine Bleeding: In Indian Setting

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Abnormal uterine bleeding (AUB) is a very commonly encountered problem of women of reproductive age group and may directly affect their quality of life by having a significant impact on their physical, social, and emotional wellbeing. AUB is a pattern of bleeding which differs from normal menstrual cycle or following menopause with respect to the frequency, duration and amount of blood loss. According to the International Federation of Gynecology and Obstetrics (FIGO), acute AUB could be defined as "an episode of bleeding in a woman of reproductive age, who is not pregnant, that is of sufficient quantity to require immediate intervention to prevent further blood loss". While chronic AUB is "bleeding from the uterine corpus that is abnormal in duration, volume, and/or frequency and has been present for the majority of the last 6 months." With reference to clinical importance, it may cause anemia in the premenopausal women and may raise the suspicion of malignancy in the postmenopausal females.

The etiopathogenesis of AUB is quite diverse including structural as well as functional elements. The workup and management of patients with AUB suffers a lot on account of controversial, variable and nonuniform nomenclature and a deficiency of standardized protocol for clinical workup and categorization of the cases based on etiology. To address this issue, FIGO devised a universally acceptable, standardized nomenclature and classification scheme, namely PALM-COEIN classification of AUB in 2011.

PALM-COEIN classification encompasses nine major categories: Polyp; Adenomyosis; Leiomyoma; Malignancy and Hyperplasia; Coagulopathy; Ovulatory dysfunction; Endometrial; Iatrogenic; and Not yet classified. Basically, the structural causes are included in the PALM aspect of the classification and can be evaluated by imaging and/or histopathology; whereas the functional aspect is represented by the COEIN group.

The treatment modalities for AUB include medical therapy and endometrial ablation as less invasive means, however, definitive treatment of AUB is hysterectomy. Moreover, it is essential to rule out premalignant conditions such as hyperplasia or early endometrial cancer prior to initiating hormonal therapy.

The PALM-COEIN system provides a systematic approach for classification of AUB in women which in turn is beneficial for both the clinicians, pathologists and research scientists for better interaction and mutual understanding as well as in providing authentic comprehensive data for research like epidemiological and prevalence studies in addition to appropriate diagnosis and therapy. Histopathological examination remains the gold standard according to the current practice in patients of AUB as it establishes the diagnosis and provides guidance regarding the appropriate management plan for each category.

There are certain conflicting opinions on the relevance of the PALM COEIN system. Parulekar critically evaluated this new system and gave his opinion that separating causes into two main categories – PALM and COEIN – based on objective structural criteria and criteria not related to structural alterations did not serve any great purpose. According to him, such classification does not alter the process of management of AUB in any way. Moreover, the lacunae are: malignancy/hyperplasia have not been subcategorized and non inclusion of functional ovarian tumors.

In a nutshell, the PALM-COEIN classification, however, has certain favourable points. The causes of AUB have become easier to remember as PALM-COEIN is an easy mnemonic. The system also provides multifactorial etiopathogenesis at the same time, and thus, further work up is required to reach at a more precise diagnosis. This system is applicable worldwide, and thus, a standardized uniform terminology will be used by one and all, therefore would help in better communication among the clinicians and pathologists promoting effective management as well as prognostication of the patients and also would help in exploring multi-centre research avenues in AUB.