Original Article

Assessment Of Abnormal Uterine Bleeding In Perimenopausal Age Group By Figo Palm- Coien Classification In Indian Women

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Abstract

Introduction

Abnormal uterine bleeding refers to any menstrual bleeding that does not conform to a woman's normal menstrual cycle. This may include changes in the regularity and frequency of menstruation, as well as the duration of the flow and the amount of blood lost when there is no pregnancy (AUB).[1] Up to 30% of women experience abnormal uterine bleeding during their reproductive years.[2]

The incidence of AUB is known to rise with age, reaching its highest point just before menopause. The perimenopausal bleeding may be an expression of the changes in the hormonal environment, but it is clinically extremely relevant owing to the increased prevalence of endometrial hyperplasias and the risk of cancer in this age group.[3]

These problems may have a substantial effect on a person's quality of life, may need time away from work, may call for surgical intervention, including hysterectomy, and may ultimately make it more difficult for a person to get sufficient medical care.[3] Because the language is both vague and inconsistently utilised, it has become difficult to conduct an investigation and maintain control over AUB. In addition, there are not a lot of well-established methods for investigating and categorising the many reasons.[4]

The study in the field of AUB is further impeded by the terminology that is constantly employed and the non-standardized research procedures, which makes it difficult to compare studies carried out by a variety of researchers. As a result, the establishment of a standard worldwide language and the classification of the many potential etiologies for AUB is essential if one wishes to facilitate improved communication among practitioners, as well as to guide research and training pertaining to this topic.[5]

The International Federation of Gynecology and Obstetrics (FIGO) created a new approach for the categorization of AUB in 2011 in response to this issue. This classification is known as the PALM-COEIN classification. The acronym PALM-COEIN is used to refer to this categorization scheme.[7]

The fundamental structure is composed of the following nine categories:

The first four are known as PALM, which stands for polyp, adenomyosis, leiomyoma, and malignant hyperplasia. The next four are known as COEI, which stands for coagulopathy, ovulatory dysfunction, endometrial, and iatrogenic, and the final category is reserved for entities that have not yet been classified (N). The American College of Obstetricians and Gynecologists gave its approval for its use in the year 2012.[8] Many articles, suggestions, and guidelines thereafter used the PALM-COEIN categorization as part of their approach.

One of a gynecologist's most frequent presenting problems is abnormal uterine bleeding (AUB). From premenopausal through postmenopausal, several age groups of women might be portrayed. The perimenopausal age group is the one in which we are doing this study since it is the most susceptible to the AUB.[9] It is a key contributor to hysterectomy, making it a serious health issue.[10] AUB is perhaps an indication of major underlying disease and is linked to substantial social and physical morbidities in all civilizations.[11]

The most typical menstruation issue during perimenopause, which is defined as the time between the final menstrual cycle and 2 to 8 years before menopause, is AUB.[12] It has been shown that follicular growth is unpredictable during this period, and as a result, oestrogen levels are variable and there are more anovulatory cycles, which increases the likelihood of abnormal uterine bleeding.

A variety of different anatomical and functional reasons, in addition to ovulation that is irregular, have been suggested as potential causes of anovulation-induced uterine bleeding (AUBs). A new categorization system (PALM-COEIN) for the aetiology of the AUB in non-gravid women has been created by the working group on menstrual disorders of the International Federation of Gynecology and Obstetrics.

The PALM side of the classification focuses on structural factors. There are a great many underlying organic diseases that are common in women who are in the perimenopausal period. The diagnosis of endometrial cancer and complex endometrial hyperplasia are intended to be ruled out as part of the therapy for AUB. Evaluation of the endometrium and/or organ histology has the advantages of both identifying the precise cause of AUB and ruling out endometrial cancer as well as other forms of malignancy and conditions that have the potential to develop into cancer in the future, such as endometrial hyperplasia with atypia. These advantages make evaluation of the endometrium and/or organ histology a desirable diagnostic procedure.[12]

The purpose of the current research was to investigate and investigate both the structural component (PALM) and the functional component (COEIN) of the PALM–COEIN system of AUB in perimenopausal age group women from our area.

Materials and method

This cross-sectional study entitled "**Assessment of abnormal uterine bleeding in perimenopausal age group by FIGO-PALM COIEN Classification in Indian Women**" was carried out after receiving approval from the Board of Studies and the Ethical Committee of the Obstetrics and Gynecology Department at Dr. D. Y. Patil Medical College, Hospital, and Research Centre in Pimpri, Pune.

Sample Size:

The population of the research project was determined by using the G-power programme with 80% of the power and 5% of the significance level. It was established that there should be a total of 285 patients in the sample.

Sample Size

According to the findings of a research that was carried out by Mishra D. and colleagues, the prevalence of patients who reported having symptoms of irregular uterine bleeding was 13.8%.

Inclusion Criteria

1. Patient's age 40 years or older and up to one year after menopause.
2. Patients that willed for inclusion in the study sample by giving consent.
3. Patients condition stable at the time inclusion that is not requiring any emergency procedure.

Exclusion criteria

1. Patients who are below 40 years and have gone through menopause for more than a year.
2. Patients with profuse bleeding
3. Patients of genital tract malignancies.
4. Patient not giving consent.

Methodology

Following the completion of the patient's demographic information, a comprehensive, physical, systemic, and gynaecological examination was carried out on the individual. After that, a systematic history of the patient's

medical and surgical history, as well as their previous and current menstruation histories, histories of utilising contraception, and medical histories, was taken. The cervix (position of cervix, any erythematous lesion, hypertrophy, mobility, presence of polyp or ectopy), the uterus (size, location, consistency, and mobility), and the adnexae (any palpable swollen lump, tenderness, and movement) were all checked during the gynaecological examination.

Following the completion of the clinical diagnostics, individuals were then assigned to PALM–COEIN. A pelvic ultrasound was carried out in order to assess the uterus (including the uterine size, endometrial thickness, and the presence of endometrial polyp, adenomyosis, or fibroids), in addition to the condition of the ovaries (including the presence of any cyst, mass, and its features).

Investigations such as a complete blood count, coagulation profile (when applicable) (for all previously known cases of defects of coagulation beginning at a younger age and AUB dating back to menarche), thyroid function test, and blood sugar level estimations were performed after a comprehensive history and comprehensive clinical examination was performed. After that, a correlation was established between the results and the clinical allocation. In cases of AUB-O and AUB-E, researchers discovered a link between the clinical designations and the endometrial histology of the affected individuals.

Statistical analysis

The statistical analysis was carried out using the statistical programme SPSS version 25.0 after the data had been loaded into the Microsoft excel spreadsheet. The student t-test was utilised in the process of analysing the differences in mean values among 2 groups, whereas the chi-square test was utilised in the process of analysing the differences in frequency between the two groups. It was determined to be statistically significant if the p-value was lower than 0.05, which was the threshold that was used.

RESULTS

Table 1: Describing the study groups as per

Age	Frequency	Percent
41-45 years	53	18.6%
46-50 years	113	39.6%
51-55 years	80	28.1%
> 55 years	39	13.7%

The age range of 46-50 years comprised the largest proportion of the participants (39.6 percent), followed by the age range of 51-55 years (28.1 percent), 41-45 years (18.6 percent), and those older than 55 years (13.7 percent).

Table 2: Describing the study groups as per Diagnosis

Diagnosis	Frequency	Percent
P1L1 with Ca endometrium	17	6.0%
P1L1 with cervical fibroid	26	9.1%
P2L2 with multiple fibroids	19	6.7%
P2L2 with adenomyosis	19	6.7%

P2L2 with endometrial hyperplasia	16	5.6%
P2L2 with Endometrial Poly	1	0.4%
P2L2 with menorrhagia	26	9.1%
P2L2 with multiple intramural fibroids	26	9.1%
P2L2A1 with AUB	34	11.9%
P3L3 with posterior wall fibroid	28	9.8%
P4L4 with adenomyosis	16	5.6%
P4L4 with AUB	26	9.1%
P4L4A1 Multiple Intramural Fibroids	31	10.9%

Table 11: Describing the study groups as per

Per vaginal examination	Frequency	Percent
Bilateral fornices free	164	57.5%
Elongated structure felt on cervix, Bilateral fornices free	26	9.1%
Hard mass felt on cervix	17	6.0%
Uterus bulky	26	9.1%
Uterus bulky/ Bilateral fornices free and non-tender	52	18.2%

Per vaginal examination showed Bilateral fornices free among 57.5%, Elongated structure felt on cervix, Bilateral fornices free among 9.1%, Hard mass felt on cervix among 6.0%, Uterus bulky among 9.1% and Uterus bulky/ Bilateral fornices free and non-tender among 18.2% cases.

Discussion

Any deviation from regular menstruation or from a regular menstrual cycle pattern is referred to as an AUB.[13-15] One of the most prevalent types of gynaecological issues observed all around the globe is abnormal bleeding from the uterus. AUB is a cause for worry since it may interrupt women's everyday lives and sexual lives and cause anaemia, which can have major medical and social repercussions.

Age

In our study, majority of the subjects belonged to 46-50 years age group (39.6%) followed by 51-55 years (28.1%), 41-45 years (18.6%) and > 55 years (13.7%). Similar to our findings, Neelgund and Hiremath.[16] reported that majority were in 45-50 years age group (68.5%) with an average of 46.6 years. Talukdar and Mahela.[17] reported that most (69.67%) of the patients were between 40 and 45 years age group. Tiwari et al.[18] observed that Menstrual disturbances were found among subjects in the age range of 17-75 years with the average of 45.00±13.40 years.

Doraiswamy et al.[19] showed that there is a substantial correlation between advancing age and an increased risk of menstruation problems. According to our research, patients aged 41–50 years were the most likely to present with severe bleeding. Yusuf et al.[20] and Muzaffar et al.[21] both observed a same incidence in their research on endometrium. Proliferative lesions such as disorganised proliferative pattern, hyperplasia, and benign endometrial polyp occur more often in the age group 41–50 years, as our study as well as numerous other studies have shown.

This age range (41–50 years) may have a higher incidence of abnormal uterine bleeding than other age ranges because these people may be in the climacteric stage, which may be the cause of the higher incidence. This could be the reason for the higher incidence. As a woman approaches menopause, the length of her menstrual cycles begins to shorten, and in many instances, they begin to become intermittently anovulatory. This is because the number of ovarian follicles and the quantity of estradiol both begin to diminish.

Symptoms

In current investigation, the history showed that there was Increased menstrual bleeding among 26.7%, Irregular bleeding among 29.1%, Irregular/ PV spotting since 2 months among 9.1% and Normal & Regular/ Clots present among 35.1% subjects. Talukdar and Mahela.[17] reported that the most typical menstruation issue was menorrhagia (43.69%). This result was comparable to that of studies by Jetley et al.[22] and Shobha.[23] which found that 46.4 percent and 46.6 percent, respectively, of clinical presentations of menorrhagia in AUB assessment.

Tiwari et al.[18] observed that Menorrhagia was the most frequent clinical presentation among individuals with premalignant and malignant endometrial patterns (60 percent), but post-menopausal bleeding was the most common clinical appearance among cases with malignant endometrial patterns (7 percent).

Neelgund and Hiremath.[16] reported that the most common symptom, menorrhagia, was seen in 128 cases (40.8%) and was linked to a proliferative, secretory, and hyperplastic endometrium. There were 53 cases of metrorrhagia (16.9%), with a predominant secretory followed by proliferative histological pattern, compared to 45 cases of menometrorrhagia (14.8%), where proliferative endometrium was more prevalent. 28 (8.9%) occurrences of intermenstrual haemorrhage were linked to endometrial polyps and endometritis. There were 24 (7.6 percent) cases of polymenorrhoea and 36 (11.5 percent) cases of polymenorrhagia, respectively. These were connected to endometrial polyp, hyperplasia, and secretory endometrium.

This is analogous to what Jetley and co-authors.[22] found in their study. Menorrhagia is the most common manifestation of AUB; however, Shapley et al. discovered that heavy menstrual bleeding often stopped throughout the perimenopausal years. This is an important finding when it comes to the treatment of these patients. Menorrhagia is the most common manifestation of AUB; however, Shapley et al.[24] discovered that heavy menstrual bleeding often stopped throughout the perimenopausal years. This is an important finding when it comes to the treatment of these patients.

Per vaginal examination

In our research, Per vaginal examination showed Bilateral fornices free among 57.5%, Elongated structure felt on cervix, Bilateral fornices free among 9.1%, Hard mass felt on cervix among 6.0%, Uterus bulky among 9.1% and Uterus bulky/ Bilateral fornices free and non-tender among 18.2% cases. Talukdar and Mahela.[16] discovered that the only USG finding in 30 % of instances that were clinically classified as DUB was a bulky uterus, which was identified by ultrasound.

Diagnosis

In our research, fibroid was found to be the most prevalent diagnosis, accounting for 45.6% of cases. This was followed by endometrial carcinoma (6.0%) and endometrial hyperplasia (4.0%). (5.6 percent). This was in line with the research by Sharma et al.[25] and Dwivedi et al.[26] Tiwari et al.[18] stated that Endometrial atrophy (75% cases), endometrial polyps, endometrial hyperplasia, endometrial cancer (10% cases), and oestrogen withdrawal were the causes of postmenopausal bleeding. Based on the findings of our research, endometrial hyperplasia was the most prevalent kind of pathology associated with PMB. This was followed by non-neoplastic patterns different

than normal endometrial patterns (10 percent). Two percent of all instances with PMB were determined to be endometrial cancer.

Vijayaraghavan et al.,[27] found that endometrial polyps, which account for 4.4 percent of all organic lesions causing irregular uterine bleeding, were shown to be the third most prevalent. Equal numbers of women in reproductive, perimenopausal, and post-menopausal age groups experienced the polyps. According to the study by Doraiswami et al.,[19] the greatest incidence was 11.2 percent, with the age range of 41 to 50 years accounting for the majority of cases. The research by Doraiswami et al. revealed the greatest endometritis incidence, with 1 out of 17 cases being diagnosed as tuberculous endometritis.

Conclusion

Patients who seek treatment in the gynaecological outpatient department most frequently present with a condition referred to as AUB. The rise in the number of patients presenting with AUB is partly attributable to factors such as improved accessibility to healthcare services and heightened levels of public awarenessThe abnormal uterine bleeding (AUB) may be a clinical symptom of more serious illnesses, such as endometrial cancer. As a result, a correct diagnosis and treatment must be carried out as quickly as possible.Even though the interpretation of an endometrial biopsy can be rather difficult at times, getting an accurate diagnosis as quickly as possible by matching the patient's medical history and radiological results is important for ensuring that the patient receives the appropriate therapy.

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