Section: Obstetrics and Gynecology

Original Research Article

STUDY OF ABNORMAL UTERINE BLEEDING IN WOMEN OF PERIMENOPAUSAL AGE GROUP

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Abstract

Background: Perimenopausal bleeding is challenging to define because distinguishing normal from abnormal uterine bleeding (AUB) during a time in life when a woman's menstrual cycles are dynamically changing requires an extra degree of clinical acumen and attention. The American College of Obstetricians and Gynecologists (ACOG) defines AUB as: 'bleeding from the uterine corpus that is abnormal in its regularity, volume, frequency or duration and is not associated with pregnancy. **Materials and Methods:** The present study was prospective analytical study conducted at, in Obstetrics and gynaecology department, JLNMCH, Bhagalpur, from April 2019 to March 2021. A total of 69 women with abnormal uterine bleeding in perimenopausal age were examined after fulfilling criteria during study period . Perimenopausal women in age group 45-55 years were included in this study. Other age groups with abnormal uterine bleeding, isolated cervical or vaginal pathology, bleeding diathesis, and pregnancy related causes of bleeding were excluded from this study. **Result:** A total of 69 women with abnormal uterine bleeding in perimenopausal age were examined after fulfilling criteria during study period . The mean age of participants was 45.68±1.03 years (age range of 45-55 years). Maximum number of patients with abnormal uterine bleeding presented in age group 45-50 years. All the study subjects were undergoing endometrial biopsy and submitted for histopathological examination. **Conclusion:** Abnormal uterine bleeding is one of the commonest reasons for women to seek medical help in all age groups, especially in perimenopausal age. However, hysterectomy remained the commonest method of intervention in peripheries of India; clinicians should encourage early evaluation AUB and implementation of alternative procedures to avoid radical surgeries so that women receive maximum benefits with least morbidity.

INTRODUCTION

Abnormal uterine bleeding is the most common and frequent presenting complaint in Gynaecology Outpatient Department in all age groups, especially in perimenopausal women.[1] Abnormal uterine bleeding may be defined as a bleeding pattern that differs in frequency, duration and amount from a pattern observed during a normal menstrual cycle or after menopause. In the perimenopausal age variation in normal cyclical pattern may be due to physiological hormonal changes or pathological. Ultrasonography is an appropriate relevant radiological diagnostic tool to identify structural abnormalities in uterus and adnexae.[2] Hysteroscopy guided endometrial biopsy is the preferred diagnostic technique to detect endometrial pathology, but lack of affordability endometrial biopsy obtained by Dilatation and Curettage (D&C) in developing countries. Accurate diagnosis of the causative factor of abnormal uterine bleeding (AUB) in this age group is of utmost importance so that appropriate management can be established.

An international expert consensus from the International Federation of Gynecology and Obstetrics (FIGO) Menstrual Disorders working group has proposed a standardized classification system for AUB to facilitate greater appreciation of the complexities of this clinical entity.[3] FIGO classification allows the detection of more than one causative factor in the same patient. There are 9 main categories within the classification system named for the acronym PALM-COEIN. The PALM side of the classification refers to structural causes that could be evaluated and diagnosed on imaging and or AUB.

Aim & Objective

Hence based on FIGO classification our study aim was to evaluate clinicopathological abnormalities and in turn to categorize methods to management of

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abnormal uterine bleeding in perimenopausal age group women.

MATERIALS AND METHODS

The present study was prospective analytical study conducted at, in Obstetrics and gynaecology department, JLNMCH, Bhagalpur, from April 2019 to March 2021. A total of 69 women with abnormal uterine bleeding in perimenopausal age were examined after fulfilling criteria during study period . Perimenopausal women in age group 45-55 years were included in this study. Other age groups with abnormal uterine bleeding, isolated cervical or vaginal pathology, bleeding diathesis, and pregnancy related causes of bleeding were excluded from this study.

Women with abnormal uterine bleeding in perimenopausal age were examined after fulfilling criteria during study period of 1 years. Perimenopausal women in age group 45-55 years were included in this study. Other age groups with abnormal uterine bleeding, isolated cervical or vaginal pathology, bleeding diathesis, and pregnancy related causes of bleeding were excluded from this study.

After obtaining informed consent, detailed history was taken from all study participants such as age, parity, menstrual symptoms, detailed history regarding amount, duration and pattern of bleeding, use of exogenous hormones, and other associated gynaecological problems were noted. Thorough physical and systemic examination was done; baseline investigations and pelvic ultrasound were done. Appropriate and relevant investigations were offered to all study participants. Endometrial tissue collected by sampling procedures such as dilatation and curettage and endometrial biopsy, which had been sent to the pathology laboratory for evaluation. Histopathological diagnosis was made, and further categorization was done for all cases.

Proper counselling about management was given to all women related to medical and surgical interventional approaches. Hysterectomy specimens subjected to histopathology examination such as endometrial, myometrial, and cervical findings were correlated well with endometrial biopsy reports, and results were analyzed. If patients opted for medical management need of regular follow up visits explained. The proper institutional ethical clearance was taken for this study.

RESULTS

A total of 69 women with abnormal uterine bleeding in perimenopausal age were examined after fulfilling criteria during study period of 1 years. The mean age of participants was 45.68±1.03 years (age range of 45-55 years). Maximum number of patients with abnormal uterine bleeding presented in age group 45-50 years. All the study subjects were undergoing endometrial biopsy and submitted for histopathological examination.

[Table 1] shows the distribution of patients according to age. Out of 69 patients 64 patients were in between 45-50 years (92.75%) and 5 patients were in between the age group of 51-55 years(7.2%). Maximum number of patients with abnormal uterine bleeding presented in age group 45-50 years.

[Table 2] shows the distribution of patients according to socio-economic factors .Out of 69 patients 27 patients were from lower class (39.13%), 21 were from lower middle class (30.43%),14 patients were from upper middle class (20.28%) and 7 patients were from higher class (10.14%). Maximum number of patients with abnormal uterine bleeding presented in lower middle class whereas least patients presented in higher class.

Duration of the symptoms in study participants were 3 months to 1 years. Comorbidities associated with AUB were obesity, hypertension, hyperthyroidism, diabetes mellitus and heart disease [Table 4].

Of the participants most common menstrual pattern presented was with history of heavy menstrual bleeding (71.01%) and frequent menstrual bleeding (17.39%). [Table 5]

Table 1: Distribution of patients according to age.

Age	No. of cases	Percentage
45-50 years	64	92.75%
51-55 years	5	7.2%
Total	69	100%

Table 2: Distribution of patients according to socio-economic factors.

Socio-economic factors	No. of cases	Percentage
Lower class	27	39.13%
Lower middle class	21	30.43%
Upper Middle class	14	20.28%
Higher class	7	10.14%
Total	69	100%

Table 3: Distribution of patients according to parity.

Parity	No. of cases	Percentage
Nulligravida	2	2.89%
Para -1	2	2.89%
Para-2	36	52.17%

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Para -3	21	30.43%
Para -4	6	8.69%
Para -5	2	2.89%
Total	69	100%

Table 4: Menstrual pattern of study subjects.

Menstrual pattern	No. of cases	Percentage
Heavy menstrual bleeding	49	71.01%
Frequent menstrual bleeding	12	17.39%
Intermenstrual bleeding	2	2.89%
Dysmenorrhea	3	4.34%
Amenorrhea followed by heavy bleeding	2	2.89%
Hypomenorrhea	1	1.44%
Total	69	100%

Table 5: Frequency of background diseases among participants.

Medical illness	No. of cases	Percentage
Diabetes mellitus	2	6.89%
Hypertension	8	27.58%
Heart disease	1	3.44%
Hypothyroidism	6	20.68%
Obesity	12	41.37%
Total	29	100%

Table 6: Histopathological findings of study subjects.

Histopathological findings of endometrium	No. of cases	Percentage
Proliferative endometrium	19	27.53%
Secretory endometrium	17	24.63%
Simple endometrial hyperplasia without atypia	13	18.84%
Disordered proliferative phase	3	4.34%
Cystic glandular hyperplasia	2	2.89%
Atrophic endometrium	2	2.89%
Complex hyperplasia without atypia	2	2.89%
Irregular ripening	2	2.89%
Irregular shedding	1	1.44%
Menstruating endometrium	1	1.44%
Adenomyosis with proliferation	1	1.144%
Endometriotic cyst	1	1.44%
Adenomatous endometritis	1	1.44%
Decidual cast	1	1.44%
Endometrial cancer	1	1.44%
Adenomatous polyps	1	1.44%
Scanty material	1	1.44%
Total	69	100%

Table 7: Surgical management of study participants.

Surgical management	No. of cases	Percentage
TAH	21	44.68%
TAH+BSO	17	36.17%
TAH+RSO	2	4.25%
TAH+LSO	7	15.55%
Total	47	100%

[Table 6] Regarding the prevalence results of pathological findings in the study participants, the most common findings. Out of 69 patients 19 patients were proliferative endometrium (27.53%), 17 patients were secretory endometrium (24.63%) followed by hyperplastic endometrium 13(18.84%).
[Table 7] shows Majority of cases were anaemic and their haemoglobin was improved by oral/injectable haematinics and blood transfusion according to requirement of the participants. Medical management in the form of hormonal and symptomatic treatment was advised to 51 patients and regular follow up was mandatory. However, only few cases were continued medical management. For remaining cases surgical management was offered due to lack of regular follow up or not getting symptomatic relief or surgery indicated itself. Eventually, surgical management was given to 47 patients.

DISCUSSION

Evaluation of AUB in perimenopausal age is a crucial step, since excessive or prolonged bleeding may cause disruption of women's daily activities, provoke serious medical consequences or exacerbate anaemia and in a certain percentage of cases may eventually be life threatening if left untreated.1 AUB was the commonest problem in the perimenopausal age with highest incidence in many more studies like Gopalan U et al, study (54.7%), Doraiswami S et al, Damle P

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et al, Muzaffar M et al.[4-7] In perimenopausal women abnormal uterine bleeding may display in different menstrual patterns, these are heavy menstrual bleeding, frequent menstrual cycles, inter-menstrual bleeding, dysmenorrhoea and amenorrhea followed by continuous heavy bleeding.

In present study majority of the cases were between 45 - 50 years age group, with mean age 46.68 [Table 1]. The mean age of participants was 44.09 years in Ghanbarzadeh N et al study.[8] The majority of study subjects belonged to low socio-economic status and prevalence of abnormal uterine bleeding increased with parity and a fewer cases were seen in grand multiparous group as their relative frequency has decreased in recent years due to small family norm. The most common symptoms were heavy menstrual bleeding (71.01%), followed by frequent menstrual bleeding (17.39%) in this present study [Table 4]. In Gupta A et al, study commonest symptoms were heavy menstrual bleeding 72% followed by heavy and frequent bleeding 13%.[9]

Dilatation and curettage are a useful and cost-effective method of detecting intrauterine pathologies and very few lesions escape detection. It is commonly used in developing countries with limited resources. Dilatation and curettage are a diagnostic as well as therapeutic procedure. The sensitivity of endometrial biopsy for the detection of endometrial abnormalities and for detection of cancer has been reported to be as high as 96% with 2- 6% false negative rates.[10] However, hysteroscopy guided biopsy is the gold standard both for screening as well as diagnostic purposes and can be performed as office procedure.

Nulliparity, early menarche, late menopause, unopposed endogenous and exogenous oestrogens, chronic anovulation and Tamoxifen therapy have all been proven to be risk factors for the development of endometrial hyperplasia and carcinoma.[11] In this study nulliparity was seen in 2.89 % of women, among them endometrial biopsy showing proliferative, disordered proliferative, endometrial carcinoma [Table 3].

ACOG recommends endometrial tissue assessment to rule out cancer in women 35 years or older with suspected anovulatory bleeding, and women unresponsive to medical therapy. An endometrial biopsy is a safe and efficient office-based procedure for sampling the endometrium in a patient presenting with abnormal uterine bleeding.[12]

In this study proliferative endometrium was the most common histopathological study followed by secretory endometrium [Table 6]. Proliferative endometrium was observed in (27.53%) of cases which was similar to studies reported by Damle RP et al (35.09%) and Bhatta S and Sinha AK (29.16%).[6,13] While, higher incidence was found in Khan S et al (46.6%) and Sheetal et al (42%).[14,15]

Abdulla and Bondaji found secretory endometrium were the most common histopathological diagnosis (24.9%) followed by proliferative endometrium 21.7%.[16] Secretory endometrium was observed in 27.4% of cases in this study, similar to Jain M et al (28.9) study.[17] But, lowest incidence was reported by Damle RP (7.95%) and Selvi A et al (10.77%).[6,18]

Disordered proliferative pattern of the endometrium is somewhat difficult to define; it refers to a proliferative phase endometrium due to persistent oestrogen stimulation. It occupies the lower end of spectrum which passes through the hyperplasia to endometrial carcinoma on the other end. Early diagnosis of the lesion will prevent further disease progression. In the present study it was seen in 6.6% patients, similar incidence was seen in Gopalan U study.4 Hoxhaj O, Gjoni M (12.2%) studies observed higher incidence in perimenopausal age.[9,19]

Endometrial hyperplasia is a common histopathological finding in perimenopausal women often causing symptoms of irregular or prolonged bleeding. Heavy bleeding is secondary to sustained level of oestrogens. The overgrowth not only affects glands and stroma but there is also abnormal vascularisation. Endometrial hyperplasia found in 18.5% of cases in this study. Doroiswami S et al (68%), Khare et al (36.2%) observed high incidence of endometrial hyperplasia.[5,20] Endometrial hyperplasia is one of the risk factor for the development of endometrial carcinoma, early diagnosis and initiation of treatment is very important. So, perimenopausal women with heavy or irregular menstrual bleeding are often advised to have an endometrial sample taken to exclude endometrial disease.[21]

Degenerative process of corpus luteum is sluggish in irregular shedding of the endometrium which leads to prolonged menstrual cycle to the waning effect of progesterone seen in 1.4% of cases. The exact cause of bleeding in atrophic endometrium is not known it is thought to be due to anatomic vascular variation or defective local haemostatic mechanism. It is observed in 3.7% of cases in our study. Adenomatous changes observed in 0.7% of cases, but in Talukdar et al study showing highest incidence 20.37%.[21]

Chronic endometritis in the present study was found in only 0.7 % of patients while it was seen with a higher incidence in a study by Damle RP et al (5.68%), Jain M, Gorania N (6.1%), Khare et al (6.4 %).[6,17,21] Endometrial polyp was found in 0.7 % cases in present study. A similar incidence was found by Gopalan U (1.1%), Muzaffar M et al (1.2%), Khan S et al (0.6%), and (1.3%) Baral R et al.[4,7,14,22]

We encountered 1 case (0.7%) of endometrial carcinoma above the age of 45 years similar results were also reported by Khare et al,[21] and Dangal G.[23] Inadequate samples are reported when no specimen is obtained, or the quality is insufficient for assessment. Management of abnormal uterine bleeding is not complete without tissue diagnosis, especially in perimenopausal and post-menopausal women.

Abnormal Uterine Bleeding is the main reason women are referred to gynaecologists. There is little consensus on specific treatment regimens for anovulatory uterine bleeding. ACOG recommends

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treatment with combination oral contraceptives or cyclic progestin. Progestin therapy and oral contraceptives induce routine withdrawal bleeding, decrease the risk of hyperplasia or cancer, and correct any related excessive menstrual bleeding.[24] Medical management was offered to majority of patients. AUB is one of the main gynecological reasons of hysterectomy and accounts for two thirds of all hysterectomies.[25] Hysterectomy was done those who were not attending for regular follow up visits and even with medical treatment not getting symptomatic relief. In this study majority of women with uterine fibroids associated with heavy bleeding and frequent menstrual cycles were treated by hysterectomy. Hysterectomy still remains the widely used treatment modality even in developed countries. However, it is necessary to be studied in different cohort groups with larger populations.

CONCLUSION

Abnormal uterine bleeding is one of the commonest reasons for women to seek medical help in all age groups, especially in perimenopausal age. Abnormal uterine bleeding with different menstrual patterns has significant effect on women's health, quality of life and ultimately social assimilation suggest that need of proper evaluation and initiation of treatment should be given a privileged priority. The present study revealed high prevalence of heavy menstrual bleeding in perimenopausal age with highest prevalence between the ages of 45-50 years. All women having abnormal menstrual bleeding should be subjected to dilatation and curettage to rule out endometrial pathology. Heavy menstrual bleeding and frequent menstrual bleeding were mostly correlated with abnormal endometrial histopathological findings in this study. Gynaecologists should pay attention towards these abnormal bleeding patterns along with the evaluation of endometrial tissue for histopathological findings. Histopathological study of the endometrium in these cases reveals a wide variety of abnormalities, evaluation of which will help us to plan for successful management. However, hysterectomy remained the commonest method of intervention in peripheries of India; clinicians should encourage early evaluation AUB and implementation of alternative procedures to avoid radical surgeries so that women receive maximum benefits with least morbidity.

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