ORIGINAL ARTICLES

HYPERPLASIA OF ENDOMETRIUM IN PERIMENOPAUSAL WOMEN WITH ABNORMAL UTERINE BLEEDING

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ABSTRACT

Objective: To determine the frequency of endometrial hyperplasia in histopathology of endometrial curettings in perimenopausal women with abnormal uterine bleeding.

Study Design: Prospective case series study.

Place and Duration of Study: Conducted in obstetric and gynae department of Dow University of Health and Sciences / Lyari General Hospital, from Jul 2009 to Jan 2010.

Material and Methods: Two hundred and eighty one perimenopausal women with abnormal uterine bleeding were included with age range between 40 to 55 years. Dilatation and curettage were carried out, under general anesthesia and endometrial samples were taken by scrapping walls of the uterus. Collected samples were fixed in 10% formalin and sent to histopathology department, Dow Medical College Karachi. Histopathology report of each patient was studied for hyperplasia and frequency of hyperplasia and its relation with type of abnormal uterine bleeding (menorrhagia, polymenorrhagea and menometrorrhagia) was determined.

Results: Mean age (± SD) was 44.13 ± 3.7 years with age range of 40–55 years. Most common type of abnormal uterine bleeding (AUB) was menorrhagia found in 211 (75.08%) women followed by menometrorrhagia in 40 (14.23%) and polymenorrhagea in 30 (10.67%) women. Endometrial hyperplasia was found in 37 (13.17%) women. Most common pattern of abnormal uterine bleeding associated with hyperplasia was polymenorrhagea 5 out of 30 (16.6%) women.

Conclusion: In this study frequency of endometrial hyperplasia was 13.17% in perimenopausal women with abnormal uterine bleeding. Abnormal uterine bleeding occurring in perimenopausal age is alarming and needs thorough evaluation including endometrial sampling, as it could be the only clinical manifestation of endometrial hyperplasia, a precursor of endometrial cancer.

Keywords: Abnormal uterine bleeding, Endometrial hyperplasia, Menorrhagia, Perimenopausal women.

INTRODUCTION

Abnormal uterine bleeding (AUB) is one of the most frequently encountered conditions in perimenopausal women. In perimenopausal women, AUB is diagnosed when there is a substantial change in frequency, duration, or amount of bleeding during or between menstrual cycles[1,2].

The manifestations of various disease patterns can be detected by histological variations of the endometrium, taking into account the age of the woman, the phase of her menstrual cycle and iatrogenic use of hormones. The incidence of endometrial hyperplasia in perimenopausal women with AUB is 4.8 to 10% per year on histopathology of endometrial biopsy, so evaluation of women's risk factors for endometrial hyperplasia or carcinoma is recommended[3,4].

The clinical importance of endometrial hyperplasia largely relates to the risk of progression to endometrial carcinoma. Thus the endometrial biopsy is recommended as a primary investigating tool, for AUB in women of >40 years of age[4,5].

The purpose of this study was to determine the frequency of endometrial hyperplasia in endometrial curettings of patients presenting

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with abnormal uterine bleeding in the perimenopausal age group at Lyari general hospital, so as to diagnose this condition earlier in addition it determines that which type of AUB is more often associated with endometrial hyperplasia. The results of this study provide the magnitude of the understandable data that may be used to convince perimenopausal women with AUB to have early endometrial biopsy and appropriate management to reduce the risk of progression to malignancy.

MATERIAL AND METHODS

This prospective, case series, study was carried out in the Department of Obstetrics and Gynaecology, DOW University of Health and Sciences, Lyari general hospital Karachi, between July 2009 and January 2010. 281 perimenopausal women with abnormal uterine bleeding were included in the study through non probability purposive sampling technique. The women with histological diagnosed malignancy, pelvic pathology as cause of AUB (e.g. fibroid, endometriosis, PID), pregnancy, coagulation disorders, an anticoagulants therapy, hypothyroidism, erratic hormone intake, pyometra, acute endometritis were excluded from the study. The sample size was calculated using the incidence value of 4.8% per year for endometrial hyperplasia in women with abnormal uterine bleeding 95% confidence interval and maximum error of ±5%.

Informed consent was taken from all the patients. History of presenting complaints including amount and duration of abnormal uterine bleeding was recorded on predesigned proforma, to evaluate type of abnormal uterine bleeding. General anaesthesia (G/A) fitness was obtained from department of anaesthesia, Lyari general hospital. Dilatation and curettage were carried out under G/A. Sample was taken by scrapping fundus, anterior, posterior, right and left lateral walls of uterus. Collected sample was fixed in 10% formalin solution and sent to histopathology department, Dow Medical College Karachi. Patients were discharged next day and reports were collected. Histopathology report of each patient was studied for underlying pathologies. The findings were entered on the proforma and data were analyzed by computer software programe SPSS 16. Frequencies and percentages were calculated for all qualitative\ categorical variables including presence of endometrial hyperplasia, types of abnormal uterine bleeding (menorrhagia, polymenorrhagea and menometrorrhagia), parity, and age group. Range was computed for age. Frequency of hyperplasia and its relation with type of abnormal uterine bleeding (menorrhagia, polymenorrhagea and menometrorrhagia) was determined.

RESULTS

For this study, a total of 281 perimenopausal women aged between 40-55 years with complaint of abnormal uterine bleeding were enrolled and

Table-I: Frequency of endometrial hyperplasia in different types of abnormal uterine bleeding (AUB).

Type of AUB	Total no of patients	No of patients with hyperplasia
Menorrhagea	211 (75.08%)	26 (12.3%)
Polymenorrhagea	30 (10.7%)	5 (16.6%)
Menometrorrhagea	40 (14.23%)	6 (15.0%)
Total	281	37 (13.17%)

Table-II: Frequency of endometrial hyperplasia in different age groups.

Age group in years	Total no of patients	No of patients with endometrial hyperplasia
40 to 45	129	13 (10.07%)
46 to 50	122	22 (18.03%)
51 to 55	30	2 (6.66)
Total	281	37 (13.17%)

reports were analyzed. The results after collection and tabulation of the data are given in tables. Histopathological results of endometrial curetting of perimenopausal women presenting with AUB (n=281) are shown in table-I. Out of 281 perimenopausal women with AUB, endometrial hyperplasia was found in 37 (13.17%) women. Common age of presentation lied between 40 to 50 years of age group. Out of 281 women, 129 (45.95%) women had age between 40–45 years; 122 (43.41%) between 46-50 years and 30 (10.68%) woman had age 50-55 years (table-II). Endometrial hyperplasia was most commonly found in age group between 46 to 50 years, 22 cases out of 122 perimenopausal women of respective age group (18.03%).

Majority of women 171 (60.9%) presented with more than 4 parity, 90 (32.0%) women with one to four parity, while 20 (7.1%) women presented with nulliparity Of the nulliparous perimenopausal women with AUB, 30% had endometrial hyperplasia.

Most common pattern of AUB was menorrhagia 211 (75.1%) followed by menometrorrhagia 40 (14.23%) and polymenorrhagea 30 (10.74%) as given in table-II.

Most common pattern of AUB associated with hyperplasia was polymenorrhagea 5 out of 30 perimenopausal women (16.6%) followed by menometrorrhagia 6 out of 40 perimenopausal women (15.0%) and menorrhagia 26 out of 211 perimenopausal women (12.32%).

DISCUSSION

Perimenopause is the period 2 to 8 years preceding menopause and 1 year after the final menses (WHO). During perimenopause, frequent anovulatory cycles can result in unopposed estrogen which gives rise to persistent proliferative or hyperplasic endometrium lining and possibly irregular and heavier vaginal bleeding[5-8].

The incidence of endometrial hyperplasia in perimenopausal women with abnormal uterine bleeding is 4.8% to 10% per year on histopathology of endometrial biopsy[9-11].

The most common presenting symptom of endometrial hyperplasia is abnormal uterine bleeding and the clinical importance of endometrial hyperplasia largely relates to the risk of progression to endometrial carcinoma[12,13].

Endometrial carcinoma is the most common gynecologic malignancy and the fourth most common cancer in women, with a projected 43,470 cases diagnosed in the United States in 2010. Significant morbidity or mortality can occur if endometrial hyperplasia is untreated or concurrent malignancy is present[14,15]. Thus the endometrial biopsy is recommended as a primary investigateve tool for AUB in women>40 years of age[16-18]. The accuracy of D&C in the detection of endometrial hyperplasia and carcinoma is relatively high (92.1%)[19-21]. In this study percentage of endometrial hyperplasia was 13.7% which is comparable to literature. The incidence of endometrial hyperplasia in women of abnormal uterine bleeding at Sion Hospital, Mumbai was 17.8%[19]. Another study from UK by Iram S et al, reported high incidence of endometrial hyperplasia (23.5%) in 40 to 50 years of age group with complains of AUB.

This is different from the findings of Muzaffar et al from Rawalpindi, who reported the frequency of endometrial hyperplasia to be 27% which is higher from other studies as well[20].

In our study, frequency of abnormal uterine bleeding was high in age groups of 40-50 years. Out of 281 women, 151 (89.3%) belongs to this age group. This is consistent with study of Muzaffar M et al that reported menstrual disorder was most common, i.e. 48% in age group 41_50[20].

Consistent with the same observation; endometrial hyperplasia was more frequent, i.e. 18.03% in age group 46_50 in our study. A study from UK showed that endometrial hyperplasia was significantly higher in women of age group >45 years, these findings are similar to our study[21]. While the study of Anwer et al detected

endometrial hyperplasia in 31_40 years age group[22].

The most common symptom in our study was menorrhagia 211 (75.08%) followed by menometrorrhagia 40 (14.23%) and polymenorrhagea 30 (10.67%) cases. Comparable to study of Machado et al, who found menorrhagia being most common presenting symptom in 62% followed by metrorrhagea 22% and with Muzaffer et-al, study; who observed menorrhagia in 51.9%, metrorrhagea in 35.4 % and polymenorrhagea in 12.7% of cases[19,20].

In our study most common type of AUB associated with hyperplasia was polymenorrhagea 16.8% followed by menometrorrhagia in 15% and menorrhagia in 12.3% of cases. Comparable to study of Muzaffer et al they found endometrial hyperplasia associated most frequently with menometrorrhagia in 32.6% cases followed by polymenorrhagea and menorrhagia in 22.2% and 20.0% cases respectively[20].

Heavy menstrual bleeding is common in perimenopausal women, causing disruption and discomfort to their life. Accurate analysis of the cause is the key to effective therapy and optimal outcome. Endometrial biopsy should be performed in all women over 40 years of age who presents with AUB to rule out premalignant conditions or endometrial carcinoma.

CONCLUSION

From the results of this study, it can be concluded that abnormal uterine bleeding occurring as heavy, frequent or acyclic flow in perimenopausal age is alarming and needs thorough evaluation with endometrial sampling as it could be the only clinical manifestation of endometrial hyperplasia which is a premalignant lesion and precursor of endometrial cancer.

CONFLICT OF INTEREST

This study has no conflict of interest to declare by any author.

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