

## Perimenopausal Age Group (45-55yrs): For Early Detection And Treatment of Endometrial Hyperplasia And Carcinoma In Women Presenting With Dysfunctional Uterine Bleeding- Original Article

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**Abstract:** Dysfunctional uterine bleeding is one of the important causes of menstruation abnormality in perimenopausal age group and the causes are to be evaluated by studying the endometrial biopsy meticulously. Among different causes of dysfunctional uterine bleeding, endometrial hyperplasia and endometrial carcinoma are lethal to the patients. **Aims:** The purpose of this research is to find out the incidence of endometrial hyperplasia and endometrial carcinoma as causative agents of dysfunctional uterine bleeding in this age group (45-55yrs) early, so that the treatment can be started as early as possible. **Settings & Design:** It is a descriptive study. **Materials and Methods:** Over a period of one and half years, samples of patients including biopsy, curettages, surgical specimens and review blocks & slides were processed, stained with H&E and evaluated morphologically. **Statistical analysis used:** Chi square. **Results:** Total 70 patients' samples were evaluated and majority (85.71%) was in 45-50yrs age group. Most (54.29%) of the patient had proliferative endometrium. 14.29% patients suffered from endometrial hyperplasia and majority was in 45-50yrs age group (13.33%). 2.86% patients had endometrial carcinoma which was majorly in 51-55yrs age group (10%). **Conclusions:** This study was conducted in the women of perimenopausal age group (45-55yrs) and it revealed that this age group can be used as early detection and treatment of endometrial hyperplasia and carcinoma.

**Keywords:** Carcinoma; Endometrium; Hyperplasia; Perimenopausal.

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### I. Introduction

Normal menstruation is defined as bleeding from secretory endometrium associated with ovulatory cycles, not exceeding a length of five days. Any bleeding not fulfilling these criteria is referred to as abnormal uterine bleeding<sup>1</sup>. It is responsible for as many as one-third of all outpatient gynecologic visits<sup>2</sup>. It may be related to dysfunctional uterine bleeding, pregnancy, anovulation, fibroids, polyps, adenomyosis or neoplasia<sup>3</sup>. This abnormal uterine bleeding generally can be divided into anovulatory and ovulatory patterns. Chronic anovulation can lead to irregular bleeding, prolonged unopposed estrogen stimulation of the endometrium, and increased risk of endometrial cancer. Perimenopause, also called the menopausal transition is the interval in which a woman's body makes a natural shift from more-or-less regular cycles of ovulation and menstruation toward permanent infertility or menopause. This phase generally occurs at around 45-55 years of age. Abnormal uterine bleeding is one of common problem in this age group. A demonstrable organic cause is not seen in DUB and endometrial curettage plays an important role in excluding organic uterine disorders<sup>4, 5</sup>. Dysfunctional uterine bleeding is one of the important causes of menstruation abnormality in perimenopausal age group and the causes are to be evaluated by studying the endometrial biopsy meticulously, whether it has been taken by old D&C method or under hysteroscopic guidance or by Pipelle<sup>6</sup>. The International Federation of Gynaecology and Obstetrics working group on menstrual disorders has developed a classification system (PALM-COEIN) for causes of the AUB: polyp; adenomyosis; leiomyoma; malignancy and hyperplasia; coagulopathy; ovulatory dysfunction; endometrial; iatrogenic; and not yet classified<sup>7, 8</sup>. Among different causes, endometrial hyperplasia and endometrial carcinoma are lethal to the patients. The purpose of this research is to find out the causative agents of dysfunctional uterine bleeding in this age group (45-55yrs) including proliferative endometrium, secretory endometrium, endometrial hyperplasia and endometrial carcinoma and to pick up endometrial hyperplasia and carcinoma early, so that the treatment can be started as early as possible<sup>1</sup>.

## **II. Materials And Methods**

The study was conducted after receiving approval from the ethical committee of Command Hospital (Eastern Command), Kolkata. From February 2013 to July 2014, all the patients, 45-55yrs age group who reported to gynaecology OPD, Command Hospital (EC), Kolkata with perimenopausal bleeding and did not have organic causes, cervical causes, endocrine and coagulation abnormalities and evaluated with endometrial biopsy, curettage or hysterectomy, were included in the study. Also review blocks and slides in the study period received in Command Hospital (Eastern Command), Kolkata were taken within consideration. Total 70 samples were evaluated. This is a descriptive study. Collected specimens were grossed and processed in the following steps of dehydration, clearing, impregnation, embedding and paraffin block preparation. Then they were sectioned and stained with Hematoxylin and Eosin stain. The slides were evaluated morphologically and the incidence of proliferative endometrium, secretory endometrium, endometrial hyperplasia and endometrial carcinoma were analyzed accordingly.

## **III. Results**

Findings related to description of causes of abnormal bleeding of the patients: 85.71% of the patients belongs to 45 to 50 years of age group and 14.29% of the patients belongs to 51 to 55 years of age. 54.29% of the total patients suffered from abnormal uterine bleeding due to proliferative endometrium, 28.56% due to secretory endometrium, 14.29% due to endometrial hyperplasia and 2.86% due to endometrial carcinoma. In 45-50 years age group, 53.33% patients suffered from abnormal uterine bleeding due to proliferative endometrium and 1.67% due to endometrial carcinoma. In 51-55 years age group, 60 % patients suffered from abnormal uterine bleeding due to proliferative endometrium and 10% due to endometrial carcinoma. 70% of the patients of endometrial hyperplasia suffered from simple endometrial hyperplasia without atypia and 30% from complex endometrial hyperplasia with atypia. There was no significant association between ages of women suffering from abnormal uterine bleeding with the proliferative endometrium and endometrial hyperplasia. But there was significant association between ages of women suffering from abnormal uterine bleeding with the secretory endometrium and endometrial carcinoma.

## **IV. Discussion**

Abnormal uterine bleeding is considered one of the most common and challenging problems presenting to the gynaecologist. It is responsible for as many as one-third of all outpatient gynaecologic visits. The present study shows that 85.71% of the patient belongs to 45 to 50 years of age group. This corroborates with the study done by Muzaffar M et al<sup>5</sup> which showed majority (48%) cases of abnormal uterine bleeding were in the age group of 41-50 yrs age group. Another study done by D Saraswathi et al<sup>9</sup> with 620 patients showed most common age group of presentation of AUB was 41-50yrs (33.5%). The present study shows that most common cause of abnormal uterine bleeding among the perimenopausal women (45-55yrs) is proliferative endometrium (54.29%) i.e. anovulatory endometrium and second most common cause is secretory endometrium (28.56%) i.e. ovulatory endometrium. In a study of 84 patients done by Dangal et al<sup>4</sup> showed predominant pattern of abnormal uterine bleeding in the perimenopausal patients were due to proliferative endometrium (38.5%). Another study done by S Vaidya et al<sup>10</sup> found that majority were normal endometrium, followed by proliferative endometrium (13.40%). Similar findings were seen in the study by S Bhatta, A K Sinha<sup>11</sup> and S Jetley et al<sup>12</sup>. Endometrial hyperplasia consists of 14.29% patients in the present study of which majority are simple endometrial hyperplasia without atypia (70%). S Vaidya et al<sup>10</sup> found that 10.92% patients had endometrial hyperplasia. Another study of 219 patients done by S Jetley et al<sup>12</sup> showed 10.9% patients having endometrial hyperplasia with majority of simple endometrial hyperplasia without atypia (79.1%). Similar findings were seen in the study by S Bhatta and A K Sinha<sup>11</sup>. Endometrial carcinoma incidence found in the present study is 2.86%. It is much more in the age group of 51-55yrs (10%) than 45-50yrs age group (1.67%). This finding is corroborative with the study finding done by S Vaidya et al<sup>9</sup> where 2.48% patients suffered from endometrial carcinoma. Similar findings were seen in the study by S Bhatta and A K Sinha<sup>11</sup> where 5.74% patients had endometrial carcinoma. Another study done by D Saraswathi et al<sup>9</sup> showed 4.4% patients had endometrial carcinoma. In the present study, significant association found between age group and secretory endometrium and endometrial carcinoma.

## **V. Conclusion**

The present study shows that abnormal uterine bleeding is one of the most important problems of the women, mainly in the perimenopausal age group. From the present study we easily identified that perimenopausal women mainly suffering from abnormal uterine bleeding due to proliferative endometrium that is anovulatory DUB. Next is secretory endometrium that is ovulatory DUB due to increased vascular tone and vasodilatation of spiral arterioles. Whereas minimum percentages of the patient were suffering due to endometrial carcinoma. So majority of the patients can be treated by follow up or NSAIDS, antifibrinolytic

agent and hormonal therapy, if necessary. Endometrial hyperplasia is also one of the main causes of abnormal uterine bleeding. Most of the patients are suffered due to simple endometrial hyperplasia without atypia. But the patients are also suffered from complex endometrial hyperplasia with atypia which is regarded as precancerous condition or carcinoma-in-situ and close follow up of those patients should be done with subsequent clinical, radiological evaluation and repeat endometrial biopsy before doing any radical procedures.

Though frequency of endometrial carcinoma found to be less than the other factors in this age group, screening for endometrial hyperplasia and endometrial carcinoma both are very important in the perimenopausal age group, mainly in the age group of 51-55yrs. Because it has been seen that the frequency of endometrial carcinoma increases much more in the postmenopausal age group. So this perimenopausal age group can be used for screening purpose and early detection of endometrial hyperplasia and carcinoma for early management and follow up.

Endometrial biopsy or curettage also proves an important diagnostic tool for evaluation of abnormal uterine bleeding where no organic causes can be found clinically or ultrasonographically and Pap smear is also normal. It is a simple procedure and done in OPD basis and very much valuable for diagnosis and following therapy and subsequent follow up. So every patients suffering from abnormal uterine bleeding and where the cause cannot be determined, endometrial biopsy or curettage should be done first.

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### I. TABLES

**Table – 1: Frequency and Percentages distribution of the patient with abnormal uterine bleeding according to age group.**

N – 70

Age group of Patient (Yrs.)	Frequency	Percentages (%)
45 - 50	60	85.71
51 - 55	10	14.29

**Table – 2: Frequency and Percentages distribution of the patient according to causes of abnormal uterine bleeding.**

**N – 70**

Causes of uterine bleeding	Frequency	Percentages (%)
Proliferative endometrium	38	54.29
Secretory endometrium	20	28.56
Endometrial hyperplasia	10	14.29
Endometrial Carcinoma	2	2.86

**Table 3: Frequency and Percentages Distribution of the patient of 45 to 50 yrs. Age group according to causes of the abdominal uterine bleeding.**

**n - 60**

Causes of uterine bleeding	Frequency	Percentages (%)
Proliferative endometrium	32	53.33
Secretory endometrium	19	31.67
Endometrial hyperplasia	8	13.33
Endometrial Carcinoma	1	1.67

**Table 4: Frequency and Percentages Distribution of the patient of 51 to 55 yrs. Age group according to causes of the abdominal uterine bleeding.**

**n - 10**

Causes of uterine bleeding	Frequency	Percentages (%)
Proliferative endometrium	6	60
Secretory endometrium	2	20
Endometrial hyperplasia	1	10
Endometrial Carcinoma	1	10

**Table 5: Frequency and Percentages Distribution of the patient who are suffering from endometrial hyperplasia according to types of the endometrial hyperplasia.**

**n – 10**

Causes of uterine bleeding	Frequency	Percentages (%)
Simple Endometrial Hyperplasia without atypia	7	70
Complex Endometrial Hyperplasia with atypia	3	30

II. FIGURES

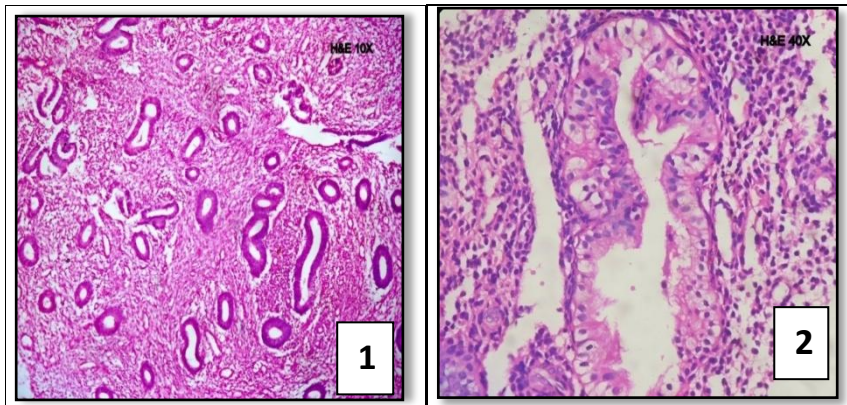


Figure 1 & 2: Photomicrographs of Proliferative endometrium and Secretory endometrium.

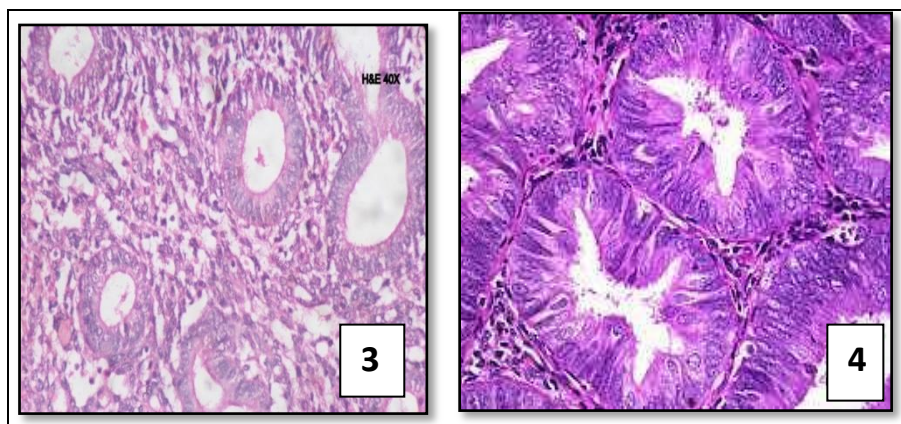


Figure 3 & 4: Photomicrographs of Simple Endometrial Hyperplasia without Atypia and Complex Endometrial Hyperplasia with ATypia.

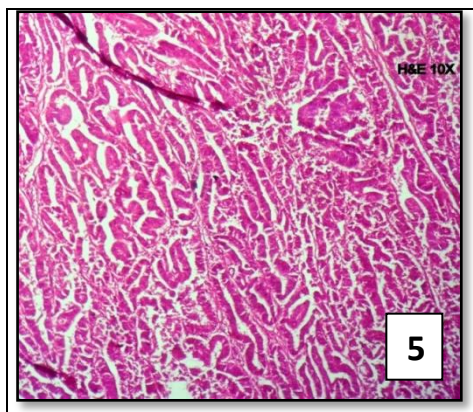


Figure 5: Photomicrograph of Endometrial Carcinoma.

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