

# Frequency and its Type of Endometrial Hyperplasia Among Perimenopausal Women Presenting with Polymenorrhagia

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## ABSTRACT

**Objective:** The goals of this study were (1) to assess the prevalence of endometrial hyperplasia in perimenopausal women presenting with polymenorrhagia, and (2) to identify the prevalence of different types of endometrial hyperplasia in this population.

**Methodology:** In this Cross Sectional survey at the Sheikh Zayed Hospital, Lahore during May 2021 to December 2021, 100 cases with > 45 years of age with symptoms of perimenopause, presenting with polymenorrhagia were included in the study. Clinical evaluation began with comprehensive history taking. Patients were extensively examined after a detailed history was taken. A complete physical, internal, and pelvic examination were performed. All patients were examined by per rectum examination. TVS was performed to check for endometrial thickness and ovarian hypertrophy. Diagnostic curettage preferably in the second half of the cycle was done in patients positive for hyperplasia and histopathology of the specimens done to determine types of hyperplasia.

**Results:** In our study, 61%(n=61) were between 45-50 years and 39%(n=39) were between 51-55 years, mean+sd was calculated as 47.34+6.84 years, frequency of endometrial hyperplasia among perimenopausal women presenting with polymenorrhagia revealed in 21%(n=21) and among them frequency of types of endometrial hyperplasia among perimenopausal women presenting with polymenorrhagia was recorded as 15(71.43%) with Cystic type of hyperplasia, 4(19.05%) had Adenomatous hyperplasia, and 2(9.52%) had atypical hyperplasia.

**Conclusion:** Cystic hyperplasia was the most frequent kind of hyperplasia, and we determined that the prevalence of endometrial hyperplasia among perimenopausal women presenting with polymenorrhagia was not considerably prevalent in our population than in developed countries.

**Keywords:** Perimenopausal women, polymenorrhagia, endometrial hyperplasia, Cystic, Adenomatous, Atypical type of hyperplasia.

## INTRODUCTION

In endometrial hyperplasia, the ratio of glands to stroma is higher than in normal endometrium, leading to the histological diagnosis of endometrial hyperplasia. Changes in size and structure of the proliferating glands, as well as cytological atypia, are indicators of a possible progression to or coexistence with endometrial cancer. Chronic oestrogen stimulation without the opposing effects of progesterone almost invariably leads to endometrial hyperplasia.<sup>1</sup>

Endometrial hyperplasia is a clinical condition that is often seen in individuals presenting with abnormal uterine bleeding when they first arrive.<sup>2</sup> The most significant etiologic factor is unopposed oestrogen, whether it comes from an endogenous or exogenous source.

One might have simple (cystic), adenomatous (complex), or atypical hyperplasia of the endometrium. Most cases of endometrial hyperplasia cannot be explained. Anovulation at advanced ages might be the cause.<sup>3</sup>

Endometrial hyperplasia is more likely to occur when a woman takes exogenous oestrogen without also taking a progestin, as shown in an analysis of 45 randomised trials involving over 35,000 postmenopausal women who had uteruses and were treated for 12 months with unopposed oestrogen, combined estrogen/progestin, or placebo for the risk of developing any type of endometrial hyperplasia (simple, atypical, or complex).<sup>4</sup>

Unusual uterine bleeding is a common symptom in women experiencing menopause. It is important to keep in mind the correlation between hyperplasia and the development of cancer, as well as its association with endometrial and ovarian cancer.<sup>3</sup>

Morphologic criteria have long supported the diagnosis of endometrial hyperplasia and endometrial type cancer originating inside the uterine cavity.<sup>5</sup> Although adenocarcinoma of the endometrium may be easily distinguished from normal endometrial epithelium, hyperplastic endometrium, especially in the absence of atypia, might provide a diagnostic difficulty.

Endometrial hyperplasia treatment options vary by patient age, reproductive goals, and hyperplasia type. The most prevalent medicinal intervention for these people is progestagens.<sup>6</sup>

Patients with endometrial hyperplasia were found to be 15% of the total, with 66.6% having simple cystic hyperplasia, 20% having adenomatous hyperplasia, and 13.3% having atypical hyperplasia, as shown by research by Takreem et al.<sup>3</sup>

We planned this study keeping in mind that cancer incidence and mortality rates are increasing rapidly especially in developing country like Pakistan and endometrial hyperplasia is a pre-malignant condition and it can help health care provider to plan for screening programmes for women in perimenopausal age with symptoms of menorrhagia or polymenorrhagia and morbidity can be reduced by planning early treatment. Also very little work is done in our setup. Hyperplasia of the endometrium is more common in women over the age of 45, but may be prevented and treated if caught early. The results of this study will be helpful while shaping future studies on the subject.

## METHODS

In this Cross sectional survey at the Sheikh Zayed Hospital, Lahore during May 2021 to December 2021, 100 cases with > 45 years of age with symptoms of perimenopause, presenting with polymenorrhagia were included in the study whereas those with bleeding disorder (abnormal PT, APTT), Abnormal thyroid function (abnormal T<sub>3</sub>, T<sub>4</sub>, TSH), Abnormal liver function were determined on appropriate laboratory investigations and Women with history of drugs containing estrogenic compounds e.g tamoxifen or contraceptive were excluded from this study. The sociodemographic information like age and address was obtained. Clinical evaluation began with comprehensive history taking. Patients were extensively examined after a detailed history was taken. A complete physical, internal, and pelvic examination were performed. All patients were examined by per rectum examination. TVS was performed to check for endometrial thickness and ovarian hypertrophy. Diagnostic curettage preferably in the second

half of the cycle was done in patients positive for hyperplasia and histopathology of the specimens done to determine types of hyperplasia. SPSS version 21 was used for data entry and analysis. Mean and standard deviation were used to illustrate quantitative variables like age. Frequency and percentages were used to show the qualitative variables such as endometrial hyperplasia and the subtypes of endometrial hyperplasia (cystic, adenomatous, and atypical).

## RESULTS

In our study, 61% (n=61) were between 45-50 years and 39% (n=39) were between 51-55 years, mean±sd was calculated as 47.34±6.84 years, frequency of endometrial hyperplasia among perimenopausal women presenting with polymenorrhagia revealed in 21% (n=21) and among them frequency of types of endometrial hyperplasia among perimenopausal women presenting with polymenorrhagia was recorded as 15 (71.43%) with Cystic type of hyperplasia, 4 (19.05%) had Adenomatous hyperplasia, and 2 (9.52%) had atypical hyperplasia.

Table 1: Frequency of Endometrial Hyperplasia Among Perimenopausal Women Presenting with Polymenorrhagia (n=100)

Endometrial hyperplasia	No. of patients	%
Yes	21	21
No	79	79

Table 2: Frequency of Types of Endometrial Hyperplasia Among Perimenopausal Women Presenting with Polymenorrhagia (n=21)

Types of hyperplasia	No. of patients	%
Cystic	15	71.43
Adenomatous	4	19.05
Atypical	2	9.52

## DISCUSSION

Our findings are consistent with Takreem et al<sup>3</sup> who demonstrated that 15% patients were found to have endometrial hyperplasia, 66.6% has simple cystic hyperplasia, 20.0% had adenomatous hyperplasia, 13.3% had atypical hyperplasia. With the rising rate of obesity and its established link to endometrial hyperplasia,<sup>7</sup> an increase in this condition would have been anticipated.

Estimates of the prevalence of endometrial hyperplasia must be interpreted with caution due to the dispute surrounding the pathologic categorization of endometrial hyperplasia and well-differentiated endometrial carcinoma and the difficulties in diagnosing endometrial tissues.<sup>8-13</sup> It is generally known that endometrial hyperplasia may be misdiagnosed on the basis of histopathology, and that endometrial cancer is a real possibility in certain cases.<sup>14</sup>

Earlier research showing a low frequency of asymptomatic endometrial neoplasia in women.<sup>15-16</sup> Among 556 postmenopausal women who were not experiencing any symptoms, 4.8% were found to have simple or complicated hyperplasia and 0.54% had atypical hyperplasia, according to one study.<sup>15</sup> In contrast, the second research found that just 0.64 percent of 2964 symptom-free women with a mean age of 52 years had simple hyperplasia. Complex or atypical hyperplasia was not seen in any of the women.<sup>16</sup>

Endometrial hyperplasia may occur as a result of obesity because of the increased levels of circulating oestrogens that promote endometrial growth. This might occur as a result of increasing adipose tissue's conversion of androstenedione to estrone or reduced levels of circulating sex hormone-binding globulin.<sup>17,18</sup> Obese premenopausal women may be at an increased risk for endometrial growth and insufficient menstrual shedding of the endometrium because they are more likely to have periods of anovulation and, hence, lower progesterone levels.<sup>19,20</sup>

However, both the occurrence and fatality rates of cancer are rising at alarming rates worldwide, and this is particularly true in developing countries like Pakistan. However, further research is needed to validate the prevalence of endometrial hyperplasia in

our community. Women over the age of 45 who are diagnosed with endometrial hyperplasia may benefit from early diagnosis and treatment, as shown in the present study, which may lead to a reduction in the disease's occurrence and an improvement in the women's life expectancy and quality.

## CONCLUSION

Cystic hyperplasia was the most frequent kind of hyperplasia, and we determined that the prevalence of endometrial hyperplasia among perimenopausal women presenting with polymenorrhagia was not considerably prevalent in our population than in developed countries.

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