

Association of Postmenopausal Bleeding with Endometrial Carcinoma

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ABSTRACT

Aim: To find the association of postmenopausal bleeding with endometrial carcinoma.

Study design: Cross-sectional analytical study

Place and duration of study: Department of Obstetrics & Gynaecology, Sahiwal Teaching Hospital and Medical College, Sahiwal from 1st January 2019 to 31 December 2021.

Methodology: One hundred women suffering from post-menopausal bleeding were enrolled. An endometrial biopsy was used for removing a piece of the tissue from the inner lining of the uterus and was conducted in suspicious women for confirming endometrial carcinoma by microscopic histopathological reporting. The frequency of endometrial carcinoma in post-menopausal women was analyzed.

Results: The mean age was 56.2±0.5 years. The recurrent bleeding was observed in 7% cases and obesity was seen in 50 cases. Transvaginal ultrasonography was performed on women due to high suspicions. Out of the total 8 cases, 87.5% had a uterine thickness >5mm with no history of hormone replacement therapy. Incidence of endometrial carcinoma was 7% among postmenopausal women.

Conclusion: Postmenopausal bleeding was commonly observed in obese women and in those who were on hormonal replacement therapy. Incidence of endometrial carcinoma was 7% in postmenopausal bleeding females.

Keywords: Endometrial carcinoma; Women; Diagnosis; Developed countries

INTRODUCTION

Endometrial carcinoma (EC) is the commonest cancer type among women of developed countries. Its prevalence is around five percent of all the cases of cancer with a morbidity rate as high as 2% among women, globally¹. In countries of North America and Europe the incidence of EC is much higher than other developed countries. The attributing factors in EC formation can be aging, early menarche age, obesity, late menopause, post-menopausal estrogen and nulliparity². Unfortunately the incidence of EC has ascended in the recent years instead of decreasing with an expectation of further increase in coming decade³⁻¹⁰.

Majority of the EC are diagnosed at local staging and can be cured surgically. The survival rate is also around 5 years in more or less 95% of the cases. However, in cases of later staging such as stage IV the five-year survival rate is around 16-45%¹¹⁻¹³. The strategies which can result into early EC detection has yet not been efficiently studied with none of a screening test available for screening population for EC.¹⁴ Initiating early detection for EC which target all the women having high risk can help increasing the survival rate in such women.

Post-menopausal bleeding is a most prominent symptom of EC with a finding of 2/3rd women of all those voiding gynaecological setting to be suffering from it. The protocol for diagnosis of EC combines with transvaginal ultrasonography of such women and hysteroscopy, biopsy and curettage. Post-menopausal bleeding is also linked with non-cancerous condition as endometrial-polyps or un-scheduled bleeding in hormone replacement therapy cases.¹⁵ Still the risk of endometrial cancer remains around 3% in women of western countries having post-menopausal bleeding.¹⁶

Present study was designed to find the association of postmenopausal bleeding with endometrial carcinoma. Results of this study will reveal the suspected women that should get evaluated on an early basis for prompt treatment and to increase their life expectancy. This study will also highlight the importance of timely diagnosis of this deadly disease.

MATERIAL AND METHODS

After permission from Institutional Ethical Review Board, this cross-sectional analytical research design women suffering from post-menopausal bleeding were enrolled. The study was conducted at Department of Obstetrics & Gynaecology, Sahiwal Teaching Hospital and Medical College, Sahiwal from 1st January 2019 to 31 December 2021. A total of 100 women were between the age of 50-65 years and women who were menopausal and were suffering from bleeding were examined in detail for their endometrial status. Suspected women were undergoing transvaginal ultrasonography. Those women who were taking hormone replacement therapy and their endometrium were >8mm with irregularities in thickness were considered suspicious for endometrial carcinoma, while those women who were not taking hormone replacement therapy and their endometrium were >5mm with irregularities in thickness were considered suspicious for endometrial carcinoma. An endometrial biopsy was used for removing a piece of the tissue from the inner lining of the uterus and was conducted in suspicious women for confirming endometrial carcinoma by microscopic histopathological reporting. The age, post-menopausal age, bleeding frequency, BMI, USG details and histopathological reports were recorded. The frequency of endometrial carcinoma in post-menopausal women was analyzed. The SPSS version 25.0 was used for the analysis in terms of frequencies and percentages through chi square tools, mean and standard deviation and also t test for quantitative variables. P value less than 0.05 was considered as significant.

RESULTS

The mean age was 56.2±0.5 years. Majority of the women were between the ages of 56-60 years. The parity status of these women showed that 40% were nulliparous women suffering from postmenopausal bleeding (Table 1).

Within the postmenopausal women suffering from bleeding there were 24% those women who came for a re-visit due to postmenopausal bleeding continuity despite of initial treatment. The recurrent bleeding was observed in 7% cases. Fifteen were those who were obese on recurrent bleeding and 17 were on hormone replacement therapy. The obesity was seen in 50% women (Table 2)

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The trans-vaginal ultrasonography was performed on 8 women due to high suspicion of endometrial carcinoma. These patients included recurrent bleeding as well as hormone replacement therapy cases. It was recorded that out of the total 8 cases 87.5% had a uterine thickness >5mm with no history of hormone replacement therapy in them. However, one woman who was on HRT had an endometrial thickness as > 8mm (Table 3).

Women having increased endometrial thickness were undergone endometrial biopsy. There were 3% patients who came for the first time with postmenopausal bleeding and were identified with endometrial carcinoma while 4% were those who had negative finding of EC on first visit but we're confirmed positive on their recurrent bleeding condition. The overall incidence of endometrial carcinoma 7% among postmenopausal women cases (Fig 1).

Table 1: Age and parity status of postmenopausal women (n=100)

| Variable | No. | % |
|--------------------|-----|------|
| Age (years) | | |
| 50-55 | 9 | 9.0 |
| 56-60 | 70 | 70.0 |
| >60 | 21 | 21.0 |
| Parity | | |
| Nulliparous | 40 | 40.0 |
| Multiparous | 60 | 60.0 |

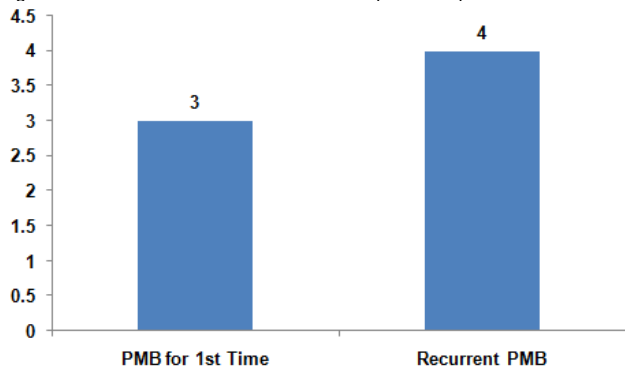
Table 2: Bleeding and obesity history of postmenopausal women (n=100)

| PMB women | No. | % |
|-----------------------------|-----|------|
| Re-visit required | 24 | 24.0 |
| Recurrent bleeding | 7 | 7.0 |
| Obesity | | |
| Recurrent bleeding | 15 | 15.0 |
| Hormone replacement therapy | 17 | 17.0 |

Table 3: Frequency of endometrial thickness (n=8)

| Endometrial thickness | No. | % |
|-----------------------|-----|------|
| >5mm in non-HRT | 7 | 87.5 |
| >8mm in HRT | 1 | 12.5 |

Fig. 1: Incidence of endometrial carcinoma in postmenopausal women



DISCUSSION

The recent ascend in endometrial carcinoma and its related mortality rate has raised a dire need of new strategy development for identifying and early detection of EC. Women who are at high risk of developing endometrial carcinoma need to be focused and properly addressed for initial detection to increase their survival rate and life expectancy. Nevertheless, this also assists in avoidance of unnecessary testing of females with low-risk of disease.¹⁷

The present study results lime lighted the fact that postmenopausal bleeding is strongly related with the endometrial carcinoma. Post-menopausal bleeding is noticed in 90% of endometrial carcinoma cases. However, in present study findings in all the postmenopausal bleeding women the incidence of endometrial carcinoma was only 7%. Current study is in

collaboration with previously reported data which elaborated the presence of endometrial carcinoma in 9% postmenopausal bleeding women¹⁸.

Effects of use of hormone replacement therapy, regional variance and obesity are significantly observed in a positive relation with endometrial carcinoma in postmenopausal women. Endometrial polyps can lead into bleeding which when suspected for endometrial carcinoma might show negative results on first visit. However, if the poly is left untreated it could result in cancerous form at later stages and thus represent endometrial carcinoma at second visit with recurrent bleeding. Lindenfeld and Langer¹⁹ have described new guidelines for the workup of endometrial carcinoma in all high-risk patients especially in postmenopausal bleeding status.

Endometrial cancer screening is required bas mandatory practice by the available guidelines on EC. High risk population who is under threat of EC needs to be targeted for screening of EC. Among these women were PMB. The present study reassures this practice by identifying a significant percentage of PMB patients who suffer from endometrial carcinoma. Additional triage- testing is required for improving specificity related to EC identification among PMB women and also for avoiding unnecessary biopsies among women with low risk²⁰.

There has been a decline in PMB risk post year 2000 however interpretations regarding results is highly significant for proper distinguishing between those women who are high risk population. There have been women with PMB and EC but there have also been those with benign findings and PMB. The number in both groups has escalated over time and might be strongly influenced by factors like hormone replacement therapy, obesity, changes in practices of clinical management as well as abnormal bleeding²⁰.

It is important to note that postmenopausal bleeding has been found to be notably lower in cases with hormone replacement therapy as was also seen in the present study. In cases where the HRT consists of estrogen high doses the scenario becomes reversed as it leads to high carcinoma chances²¹.

CONCLUSION

Postmenopausal bleeding is strongly related with the endometrial carcinoma. Postmenopausal bleeding was commonly observed in obese women and in those who were on hormonal replacement therapy. Incidence of EC was 7% in PMB females.

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