

Benign Looking Malignant or Malignant Looking Benign? - The Final Verdict in Postmenopausal Bleeding: A Prospective Observational Study

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ABSTRACT

Introduction: Postmenopausal bleeding (PMB) accounts for 5% of gynaecology presentations. Generally, 4 to 11 percent of postmenopausal women will experience bleeding. The aim of the study was to determine the causes of postmenopausal bleeding and to compare the transvaginal sonographic finding with the histopathological examination results.

Material and Methods: A prospective observational study was conducted among 131 patients with postmenopausal bleeding who attended Gynaecology clinic at Kasturba Medical College, Manipal. The causes of postmenopausal bleeding was noted. The transvaginal sonographic finding was compared with histopathological examination results.

Results: The mean age of patients presenting with postmenopausal bleeding was 62.4±7.5 years. Postmenopausal bleeding (PMB) was more common in multiparous women. The most common cause of postmenopausal bleeding was found to be proliferative endometrium, followed by endometrial polyp. Most of the cases that were diagnosed as endometrial polyp, simple hyperplasia, proliferative endometrium and carcinoma endometrium revealed thick endometrium on ultrasound. Majority of the cases that were diagnosed as endometrial polyp, proliferative endometrium and simple hyperplasia revealed a normal sized uterus by scan, however a good number of cases showed even bulky uterus. Patients diagnosed with carcinoma endometrium by histopathology had even a normal sized and atrophic uterus.

Conclusion: Fractional curettage has to be done in any patient presenting with postmenopausal bleeding despite a finding of atrophic uterus or thin endometrium by ultrasound.

Keywords: Postmenopausal bleeding, Transvaginal sonography, Fractional curettage.

INTRODUCTION

Postmenopausal bleeding (PMB) is defined as uterine bleeding that occurs atleast one year after menopause. PMB is a common problem that is frequently encountered in hospital settings.^{1,2} The incidence of PMB is around 10% in the general population.³ PMB is usually associated with abnormalities of the endometrium, either benign or malignant. The reported incidence of endometrial carcinoma in women with PMB is 10–15%.^{4,5} In the patients who present with PMB and an increased endometrial thickness, the reported prevalence of endometrial polyps was found to be approximately 40%.⁶ In developed countries, endometrial carcinoma was found to be the most common malignancy of the gynaecological malignancies.⁷ Endometrial carcinoma often presents at an early stage, hence the patient could undergo hyster-

ectomy which is a curative treatment in the initial stages. Timely diagnosis of endometrial carcinoma is significantly important since the survival rate in these patients decreases with increased staging and lower histological differentiation. In any patient with PMB we should aim to exclude cervical cancer, endometrial carcinoma or precancerous lesions of the endometrium.⁸ Transvaginal sonography is the first modality of investigation which is performed in these patients, though it may be sometimes inconclusive and rarely misleading. Fractional curettage is the next step in the diagnosis of patients with PMB which is done to rule out malignant or premalignant conditions. The objective of this study was to know the causes of postmenopausal bleeding and also to compare the ultrasound finding with histopathological examination results.

MATERIAL AND METHOD

A total of 131 consecutive patients presenting with spontaneously occurring PMB after one year of menopause were included in the study. Women having undergone hysterectomy and bilateral salpingo-oophorectomy, receiving radiotherapy or chemotherapy, suffered trauma to the genital tract, having coagulation disorder or on anticoagulant or hormone replacement therapy were excluded. The study was carried out in the Department of Obstetrics and Gynaecology, Kasturba Medical College, Manipal between January 2014 to December 2015. An informed consent was obtained and complete medical history was taken. Physical examination was conducted and relevant laboratory investigations were carried out. Transvaginal ultrasound was performed to note the size of uterus, endometrial thickness and possible presence of any adrenal masses. Fractional curettage was done depending on examination findings. Histopathological examination results were analysed. The causes of postmenopausal bleed-

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ing was noted and the ultrasound finding was compared with the histopathological examination results.

STATISTICAL ANALYSIS

The data was analysed in frequency and percentages. Continuous variables were summarized as mean and standard deviations. The categorical variables were expressed in percentages.

RESULTS

The mean age of patients presenting with postmenopausal bleeding was 62 years. Postmenopausal bleeding (PMB) was more common in multiparous women (91.6%) compared to nulliparous women (8.39%). PMB was seen approximately 8 years after menopause in these women. Medical co-morbidities like diabetes mellitus, hypertension and obesity were present in 27.48% of cases [Table 1].

The most common cause of postmenopausal bleeding was found to be proliferative endometrium (23.7%), followed by endometrial polyp (19.8%). Other major causes of postmenopausal bleeding were carcinoma cervix(12.2%), chronic cervicitis(8.4%), chronic non-specific endometritis(7.6%) and carcinoma endometrium(6.9%) [Figure 1].

Endocervical curettage was done in patients with suspected endometrial abnormality. Histopathological examination of these samples revealed endometrial polyp (27.1%) as the most common endometrial cause of postmenopausal bleeding, followed by proliferative endometrium (17.7%) and carcinoma endometrium (9.4%) [Figure 2].

The cases finally diagnosed as carcinoma endometrium revealed a wide range of endometrial thickness by ultrasound (< 5mm to > 20mm), however it was more commonly associated with thick endometrium. Most of the cases that were diagnosed as endometrial polyp, simple hyperplasia and proliferative endometrium revealed thick endometrium on ultrasound. One case of atrophic endometrium had an endometrial thickness of 10mm and one case of cystic atrophy had an endometrial thickness of 23mm which was unusual [Figure 3].

The cases diagnosed as carcinoma endometrium by an initial scan showed both bulky and normal sized uterus and one case showed an atrophic uterus. Majority of the cases that were diagnosed as endometrial polyp, proliferative endometrium and simple hyperplasia revealed a normal sized uterus by scan, however a good number of cases showed even bulky uterus. One case of cystic atrophy revealed bulky uterus by scan which was unusual [Figure 4].

DISCUSSION

The mean age of patients presenting with postmenopausal bleeding at presentation was 62.4±7.5 years which is similar to other reports.^{9,10} A wide variety of benign causes were observed related to uterus, cervix and vagina consistent with other studies.¹¹ Amongst benign causes proliferative endometrium was the most common followed by endometrial polyp as in many other studies.¹² However, chronic cervicitis has

Age (years)(mean±SD)	62.4±7.5
Nullipara	11(8.39%)
Multipara	120(91.6%)
Postmenopausal period (years) (mean±SD)	8.4±6.9
Medical Co-morbidities	36(27.48%)
Table-1: Demographic Characteristics of patients with postmenopausal bleeding (n=131)	

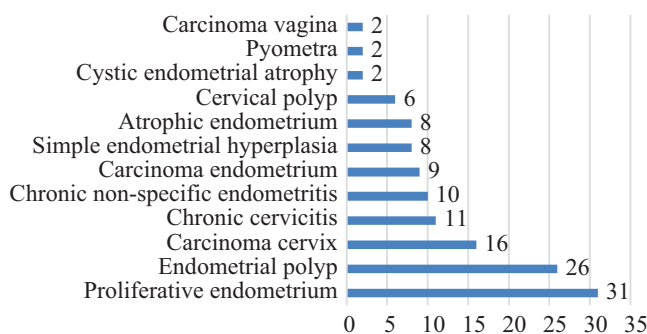


Figure-1: Etiology of postmenopausal bleeding (n=131).

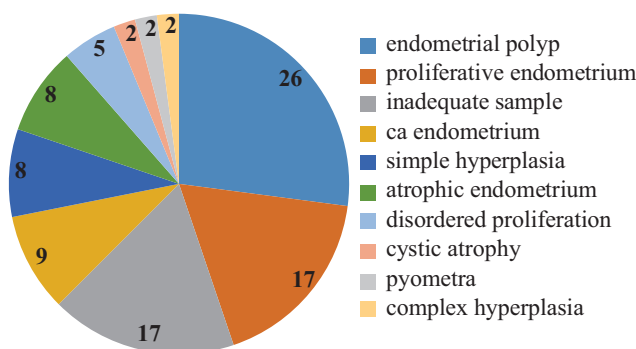


Figure-2: Analysis of Histopathological examination (HPE) results of endocervical curettage (n=96)

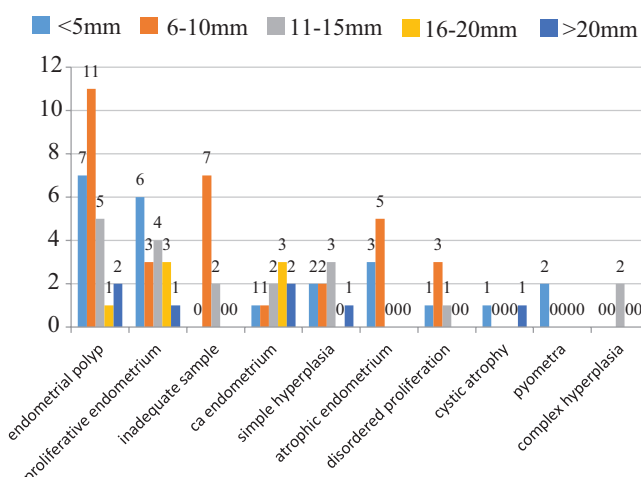


Figure-3: Co-relation of endometrial thickness by ultrasound with Endometrial sample HPE results (n=96)

also been seen as the predominant cause in few studies.¹¹ The differences could be real, based on different patterns of diseases according to geographic or ethnic differences or simply because of different selection criteria among various study populations. In order to clarify these differences, larger multicentre studies would be required. Endometrial polyp should

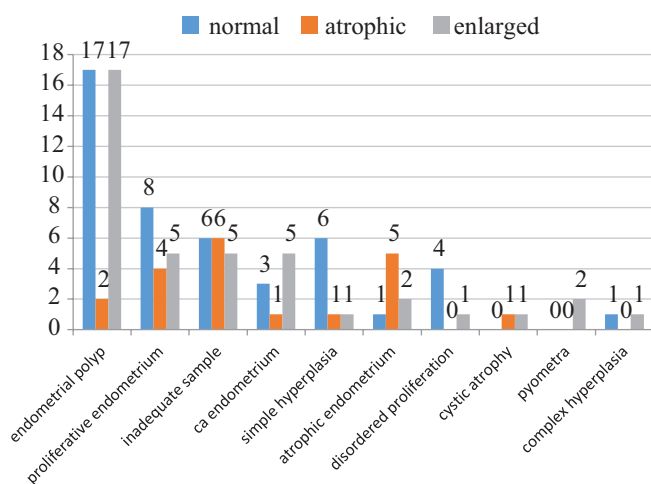


Figure-4: Co-relation of size of uterus by ultrasound with endometrial sample HPE results (n=96)

be removed to prevent malignant change. Simple hyperplasia can be treated with medicines but atypical hyperplasia requires surgical management. The reported incidence of malignancy in postmenopausal women has major differences in different population groups. It has been as low as 1–1.5%¹³ in Jewish women probably due to low incidence of carcinoma cervix to as high as 54%¹⁴ in African women. In our study incidence of malignancy was 20.6% inclusive of carcinoma cervix, endometrium and vagina. The risk factors for endometrial carcinoma include obesity, hormones, tamoxifen, diabetes and hypertension.¹⁵ The risk of endometrial carcinoma increases with age with approximately 1% at age of 50 years to 25% at age 80.¹⁶ The ratio of carcinoma endometrium to carcinoma cervix in this study was 1:2, which was in reverse order to the study conducted in Jewish population.¹⁷ Rare causes of PMB have been reported in literature such as pinworm infestation, primary vaginal malignant melanoma or its urethral metastasis, hydatidiform mole, leiomyosarcoma, non-caseating sarcoid granuloma and genital tract tuberculosis which is responsible for approximately 1% cases.

CONCLUSIONS

The most common cause of postmenopausal bleeding after having excluded carcinoma cervix, is proliferative endometrium followed by endometrial polyp as per our study. An initial ultrasound may falsely give an impression of endometrial carcinoma in view of findings of bulky uterus or thick endometrium. It must be asserted that despite a finding of atrophic uterus or thin endometrium by ultrasound, a fractional curettage must be done. When it comes to postmenopausal bleeding, prediction could go wrong as looks may be deceptive. Rare causes can be rarely possible.

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