Full Length Research Article

Role of USG and D&C in evaluation of post menopausal women presenting with bleeding and with asymptomatic endometrial thickening

*Dr. Lakshmi Nair

Department of Obstetrics and Gynaecology, Dr SMCSI MCH, Karakonam, Thiruvananthapuram, Kerala

Received 21st April 2015; Published 31st May 2015

Introduction – Permanent cessation of menses for more than one year is termed as menopause. Patients in menopause may present with post menopausal bleeding or with asymptomatic endometrial thickening found incidentally on USG. Due to increased incidence of endometrial cancer in post menopausal women they should be further evaluated. This study was done to observe the role of ultrasonography and dilatation and curettage in evaluating post menopausal women presenting with bleeding and asymptomatic women with USG diagnosed endometrial thickening and to correlate the USG findings with the presence / absence of abnormal histopathological finding including carcinoma endometrium.

Material and methods – this was a retrospective study in which records of 48 postmenopausal women who underwent D&C for either post menopausal bleeding or asymptomatic endometrial thickening were analyzed. Relevant information was documented in a proforma and statistical analysis was done.

Results – in this study the mean age of patients was 54.9 years. 50% patients had menopause of 1-5 years duration. 64.6% patients had post menopausal bleeding. 33% and 31.2% patients had hypertension and diabetes respectively as co-morbidities. 52.1% patients had associated fibroid on USG examination. About 64.6% had USG diagnosed endometrial thickening between 5-10 mm, 12.5% had thickening between 11-15 mm, 10.4% had thickening between 16-20 mm, 4.2% had thickening >20 mm. Histopathology report showed 18.8% as having disordered proliferative endometrium, tissue obtained was insufficient in 16.7% cases, atrophic endometrium was seen in 14.6% cases, endometrial polyp was seen in 8.3% cases, carcinoma was seen in 6.2% cases.

Conclusion – Ultrasoundography is an inexpensive and non invasive method for diagnosing endometrial pathology but due to its non specificity endometrial sampling is required for confirmation of diagnosis.

Key words: Ultrasonography, Dilatation and Curettage, Endometrial carcinoma, Post menopausal bleeding, Asymptomatic endometrial thickening.

INTRODUCTION

Permanent cessation of menses for a period of more than one year is called menopause. Any bleeding in the post menopausal period should be evaluated to rule out endometrial carcinoma as the risk is nearly 10% (Karlsson et al., 1995). Endometrial atrophy is the most common cause for post menopausal bleeding, accounting for 60 -80% of the cases (Sheila Balakrishnan, 2010). Asymptomatic endometrial thickening is defined as endometrial of >5 mm on USG in postmenopausal women who are not bleeding (Vuento et al., 1999). Current literature suggests that an endometrial thickening of 8-11 mm is not abnormal. The diagnosis of cancer in asymptomatic women is estimated to be 5-10%. After menopause the endometrium may show proliferative changes, simple hyperplasia, complex hyperplasia and carcinoma. Since USG is non specific in identifying the different endometrial abnormalities endometrial sampling through D&C, office endometrial biopsy, hysteroscopic guided biopsy is often required to confirm the diagnosis in both symptomatic and asymptomatic post menopausal women.

Objectives

This study was done to observe the role of ultrasonography and dilatation and curettage in evaluating post menopausal women presenting with bleeding and asymptomatic women with USG diagnosed endometrial thickening and to correlate the USG findings with the presence/absence of abnormal histopathological finding including carcinoma endometrium.

MATERIALS AND METHODS

This was a retrospective study done at Dr SMCSI MCH where all postmenopausal women who underwent D&C for bleeding or for asymptomatic endometrial thickening on ultrasonography from January 1st 2013 to December 31st 2014 were included. 48 postmenopausal women underwent D&C out of which 31 patients had postmenopausal bleeding for varying duration of time. These patients had D&C even if their endometrial thickness on USG was less than 5mm. 17 patients were found to have increased endometrial thickness i.e. > 5mm
as an incidental finding when USG was done for non gynaecological reasons. They were referred to gynaecology OPD and D&C was done in view of their endometrial thickening. Further management of these patients was done depending on the histopathological findings. The case records of all 48 patients were obtained from the medical records department and were examined in detail including the clinical, USG and histopathological findings. All the relevant details were entered in a proforma prepared by the investigator and descriptive statistical analysis was done using SPSS software.

RESULTS
In this study the mean age of the patients was 54.9 years. 50% of the patients (24/48) had duration of menopause between 1-5 years. 64.6% (31/48) had post menopausal bleeding. About 33% (16/48) of patients had hypertension, 31.2% (15/48) patients had diabetes, 12.5% (6/48) had hypothyroidism as associated co-morbidities. Most common associated finding on USG was fibroid uterus which was seen in 52.1% (25/48) patients. Adenomyosis and endometrial polypl was seen in one patient each on USG. About 64.6% (31/48) had USG diagnosed endometrial thickening between 5-10 mm, 12.5% (6/48) had thickening between 11-15 mm, 10.4% (5/48) had thickening between 16-20 mm, 4.2% (2/48) had thickening >20 mm. Only 4 patients were found to have endometrial thickening < 5 mm. D&C was done in all the patients even in patients with endometrial thickness <5mm as they were having post menopausal bleeding. Histopathology report showed 18.8% (9/48) as having disordered proliferative endometrium, tissue obtained was insufficient in 16.7% (8/48) cases, atrophic endometrium was seen in 14.6% (7/48) cases, endometrial polypl was seen in 8.3% (4/48) cases, carcinoma was seen in 6.2% (3/48) cases and one case each of simple and complex hyperplasia.

DISCUSSION
In this study the mean age of patients was 54.9 years. The mean age of menopause in our country is 51 years (Sheila Balakrishnan, 2010). The duration of menopause seen in maximum patients were between 1-5 years (50%) that is because endometrium may be thickened in first few years after menopause due to fluctuating levels of estrogen. Postmenopausal bleeding was seen in 64.6% patients. Gallup and Stock (1984) observed that 80% endometrial carcinoma occurs in post menopausal women and 90% endometrial carcinoma presents with bleeding. Fibroid uterus was seen in 52.1% patients on ultrasound. In a study by Lurie et al. (2005) the prevalence of ultrasound identified tumors is 33% in the age group between 40 to 60 years. 64.6% patients had endometrial thickness between 5-10mm followed by 12.5% between 11-15 mm. In 1999 Vuento et al. (1999) did a study to assess the feasibility of using endometrial thickness for screening endometrial carcinoma in asymptomatic post menopausal women. Out of 1074 women screened only 29% had endometrial thickness > 4 mm and only 23 patients had endometrial pathology on doing D&C and only 3 of them had carcinoma. In this study the prevalence of thickened endometrium is high as we have taken symptomatic post menopausal women along with the asymptomatic ones. In this study 33% had hypertension and 31.2% had diabetes as seen in a study by Andolf et al. (1993) where they found that in post menopausal women with thick endometrium there is a non-significant trend towards a higher prevalence of predisposing factors like hypertension, diabetes and nulliparity. In a study done by Korhonen et al. (1997) where they biopsied 2964 perimenopausal and post menopausal women found that 68.7% had atrophic endometrium, 23.5% proliferative, 0.5% secretory, 6.6% insufficient and <0.075 were malignant showing the low incidence of pathology in the general population. Whereas in our study of post menopausal women 18.8% had proliferative endometrium (as maximum patients had < 5 years of menopause), 14.6% had atrophic and 16.7% were insufficient for classification. In a study by Tsuda et al. they found that proliferative endometrium was seen in 28% women in < 5 years of menopause. In our study endometrial polyp was seen in 8.3% cases whereas in a study by Tjarks and Van Voorhis. (2000) there was 13% to 50% prevalence of endometrial polyp in post menopausal women with bleeding. In this study prevalence of carcinoma was 6.2% which is similar to a study conducted by Smith Birdman et al. (2004) where they found the risk of carcinoma in post menopausal women to be 7.3% if they had endometrial thickness >5 mm along with bleeding per vaginum, while in women who are asymptomatic the risk is 6.7% if the endometrial thickness is >11 mm. In our study all 3 patients who were diagnosed to have carcinoma had post menopausal bleeding and endometrial thickness >11mm. All three patients were referred to the Regional Cancer Centre for further management.

Conclusion
Ultrasoundography is relatively inexpensive, non invasive and readily available tool for diagnosing endometrial abnormality especially in symptomatic as well as asymptomatic post menopausal women. A limitation of USG is that the abnormal findings are not specific and has to be co-related with endometrial sampling. The finding of asymptomatic endometrial thickening presents a management dilemma for the clinicians. Goldstein, in 2010 recommended that asymptomatic thickening should be evaluated on a case to case basis. Endometrial sampling by D&C or pipelle is still the next step in diagnosing endometrial abnormalities including carcinoma. Alternatively hysterectomy and hysteroscopic guided biopsy can be used to prevent unnecessary D&C and its complications.

REFERENCES

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