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Value of transvaginal ultrasound scan measured endometrial thickness in minimizing further investigations in postmenopausal bleedingM.A.D.N. Munasinghe^{1*}, S.M. Fernandopulle¹, S. J. de S. Hewavisenthi²¹Department of Histopathology, Colombo North Teaching Hospital, Ragama, Sri Lanka²Department of Pathology, Faculty of Medicine, University of Kelaniya, Sri Lanka

Introduction: Endometrial hyperplasia (EH) and endometrial carcinoma (EC) are the most clinically significant causes for postmenopausal bleeding (PMB). Transvaginal ultrasound scan (TVS) followed by endometrial biopsy when the endometrial thickness (ET) is >4mm is utilized for investigating PMB.

Objectives: To determine whether the cut-off of ET ≤4 mm in TVS is adequate to exclude EC and EH in women with PMB in a local setting.

Methodology: All endometrial curettage /pipelle biopsies of women presenting with PMB reported from January 2019 to December 2020 were included. These patients were classified into two groups, ET ≤4 mm and ET >4 mm, based on the information in the request form. The histomorphology of endometrial curettage/pipelle biopsies was classified into EC/EH and benign conditions; atrophic endometrium (AE), endometrial polyp (EP), disordered proliferative endometrium (DPE) and exogenous hormonal effects (EHE). The Chi-square test was used to determine the correlation between the diagnosis of neoplastic/preneoplastic and benign conditions with the endometrial thickness.

Results: ET was ≤4mm in 30% (21/70; AE-14, EP-2, EHE-3, DPE-1, EC-1). ET was >4mm in 70% (49/70; AE -19, EP-8, EHE-4, DPE-2, EH-3, EC-13). EC and EH were diagnosed in 29.98% (17/70). One woman in the <4mm ET group was diagnosed as EC. The correlation between the EC/EH group and ET>4mm and the benign group and ET <4mm was statistically significant [$\chi^2 = 6.219$, $p=0.013$ ($p<0.05$)].

Discussion and conclusion: A cut-off value ≤4mm ET using TVS is reliable in identifying women with PMB who are highly unlikely to harbour EC and EH, avoiding more invasive procedures.

Keywords: endometrial biopsy, transvaginal ultrasound endometrial thickness, post-menopausal bleeding

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