Determining a threshold measurement of Endometrial Thickness for Asymptomatic Postmenopausal Women: A single-centre case series

Amy Stewart¹, Gurjot Gill², Emma Readman³, Sonia Grover³, and Samantha Mooney³

¹Peninsula Health

²The University of Melbourne

³Mercy Hospital for Women

November 4, 2021

Abstract

Objective: To determine the endometrial thickness at which endometrial sampling is indicated in asymptomatic post-menopausal women referred with thickened endometrium on ultrasound. **Design:** Retrospective case series **Setting:** Mercy Hospital for Women, Melbourne **Population:** Post-menopausal women without bleeding, undergoing hysteroscopy for thickened endometrium **Methods:** Logistic regression was used to examine the association between a range of variables and pre-malignant or malignant pathology and endometrial thickness **Main outcome measures:** The primary outcome was endometrial malignancy/pre-malignancy and its relation to endometrial thickness. Secondary outcomes focused on identifying additional predictors which may influence endometrial malignancy such as ultrasound findings, years since menopause, age, obesity, diabetes, and tamoxifen use. **Results:** A total of 404 postmenopausal women met the inclusion criteria for this study. The mean (SD) age of patients at presentation was 65 (9.09) years and the mean BMI was 29.86 kg/m² (6.52). Of these women, nine (2.2%) were diagnosed with endometrial carcinoma and 7 (1.7%) had endometrial hyperplasia with atypia. The most common histopathological finding was of a benign endometrial polyp (153, 37.9%). When including hyperplasia with or without atypia in histopathology of interest, a cut-off of ≥ 9 mm provides the greatest sensitivity (83.3%) and specificity (63.8%) for a diagnosis of pre-malignant or malignant pathology (classification accuracy of 64.8%; AUROC: 0.7358, 95%CI: 0.6439, 0.8278) in this cohort. **Conclusions:** Using an endometrial thickness of ≥ 9 mm can be safely used as a cut-off for endometrial sampling in post-menopausal women without bleeding. **Funding:** Norman Beischer Medical Research Foundation, 2018 NBMRF Grant **Keywords:** Endometrial thickness, Post-menopausal, endometrial hyperplasia

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