An audit: The concordance of transvaginal ultrasonographic measurement of endometrial thickness, endometrial sampling and diagnosis of endometrial malignancy in women with postmenopausal uterine bleeding

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ABSTRACT

Introduction: Postmenopausal bleed is the most prevalent non-pathognomonic symptom of endometrial cancer that warrants further investigations. Approximately 90% of patients with endometrial malignancy reported endometrial bleeding as the only presenting symptom that leads to their diagnosis. Transvaginal ultrasound (TVS) with or without biopsy are the current mainstays of investigations. Pipelle sampling is commonly practiced clinically due to its simplicity, device availability and high sensitivity while hysteroscopic sampling is often performed when pipelle sampling is unsuccessful. Current consensus suggests endometrial sampling to be performed in all postmenopausal women with ≥4 mm endometrial thickness. However, the invasive nature of tissue biopsy and the problem of sample inadequacy for histopathology limit the diagnostic values. Hence, our paper aim to determine a new cut-off value for endometrial thickness that justifies the necessity of endometrial sampling. This study aimed to determine the cut-off value for endometrial thickness that justifies the necessity of endometrial sampling based on local populations. **Materials and Methods:** An audit involving retrospective sampling of all cases of endometrial sampling performed in women with postmenopausal bleed in Hospital Sultanah Aminah Johor Bahru (HSAJB) from 1st January 2021 to 31st December 2022. **Results:** A total of 65 patients were analyzed (range 47-81 yearsold, median 59 years). The mean menopausal age was 51 years while the mean BMI was 30 years. 19 (29.2%) of the patients had endometrial cancer. Thicker endometrial lining ($p<0.005$) and onset of bleeding >5 years postmenopausal ($p=0.013$) were both associated significantly with endometrial malignancy. Dyslipidemia ($p=0.035$) was a significant factor associated with thicker endometrium among malignant cases. The area under the receiver-operating characteristic curve (ROC) was 0.83 (95% CI, 0.726-0.928) which indicated the very good accuracy of TVS ET in diagnosing malignancy. The cut-off value was 10.35 mm, achieving sensitivity of 74% and specificity of 83%. **Conclusion:** With a cut-off value of 10.35 mm, TVS is sensitive and specific to detecting endometrial pathology while avoiding unnecessary invasive endometrial sampling.