

EP01.16 Endometrial thickness as a prognostic marker in premenopausal abnormal uterine bleeding: diagnostic accuracy and kaplan-meier survival insights

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Objective :

To assess the diagnostic accuracy and prognostic value of ET (endometrial thickness), supplemented by Kaplan–Meier survival analysis, in predicting endometrial malignancy among premenopausal women with abnormal uterine bleeding (AUB).

Methods :

Retrospective analytical study including premenopausal women presenting with AUB at Charles Nicolle Hospital, Tunis, Tunisia (2016–2024).

All underwent transvaginal ultrasound (TVUS) followed by endometrial sampling (hysteroscopy or curettage) and definitive histological confirmation on hysterectomy specimens. Sonographic features were described using International Endometrial Tumor Analysis (IETA) criteria.

Diagnostic performance of ET was evaluated using receiver operating characteristic (ROC) curve analysis. Kaplan–Meier survival analysis was applied to time-to-consultation and time-to-diagnosis, not survival outcomes.

Results:

- ROC analysis identified ET as the strongest predictor of endometrial malignancy (AUC = 0.842, $p < 0.001$).
- An optimal cutoff of >9 mm achieved 69.2% sensitivity, 87.1% specificity, and a negative predictive value of 97.7%, effectively ruling out malignancy in patients with $ET \leq 9$ mm.
- Although the positive predictive value was modest (26.5%), ET reliably stratified risk for further invasive evaluation.
- Kaplan–Meier analysis demonstrated that $ET > 9$ mm was associated with earlier consultation (mean 27.7 vs. 70.3 months, $p < 0.0001$) and shorter time-to-diagnosis (median 12 months vs. not reached, $p < 0.0001$), reflecting a more aggressive clinical course.

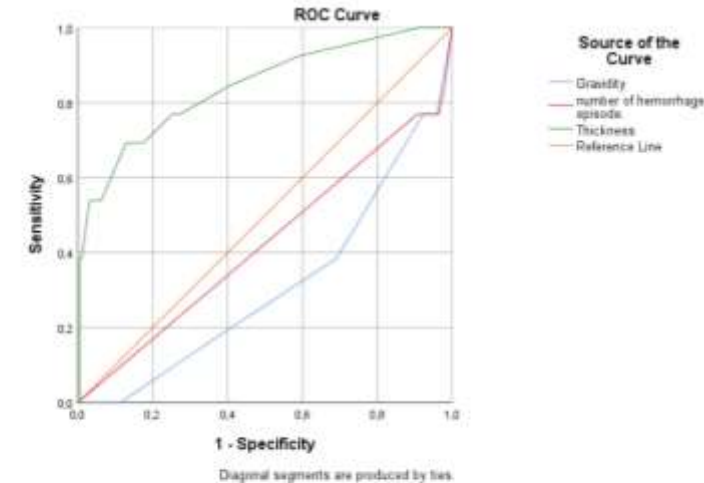


Figure 2. Predictive performance of endometrial thickness versus clinical features (gravidity, number of hemorrhage episodes) for endometrial malignancy based on ROC analysis.

CONCLUSIONS

ET > 9 mm is a robust, non-invasive potential prognostic marker in premenopausal AUB, identifying high-risk women requiring urgent evaluation while safely excluding malignancy in low-risk patients.