

EP02.16

Accuracy of the IOTA ADNEX model in the diagnosis of borderline ovarian tumors in a tertiary hospital in the Philippines: a retrospective study

Regina Salve R. Minaldo-Rebato, MD, FPOGS; Kareen N. Reforma, MD, FPOGS, FPSUOG



Objectives

To assess the diagnostic accuracy of the IOTA ADNEX (International Ovarian Tumor Analysis Assessment of Different NEoplasias in the adneXa) model in identifying borderline ovarian tumors (BOTs) and to describe their associated clinical and sonologic features.

Methods

This retrospective analytical study included women who underwent preoperative gynecologic ultrasound and surgery at a tertiary institution in the Philippines. Histopathology served as the reference standard. The diagnostic performance of the ADNEX model, subjective assessment (SA), CA 125, and CA 19-9 was evaluated using receiver operating characteristic (ROC) analysis.

Results

- From 2019-2024, 230 patients were included: 104 (45%) benign, 41 (18%) borderline, and 85 (37%) malignant ovarian masses. The mean age was 47 years, and abdominal enlargement was the most common presenting symptom (53%). Mucinous tumors comprised the majority of BOTs (78%). Larger tumor diameter (25 ± 6 cm), multilocularity (>10 locules), honeycomb nodules, and minimal vascularity were significantly associated with BOTs.
- CA 125 showed moderate diagnostic accuracy in distinguishing benign from borderline tumors (AUC 0.74; cutoff 53 U/mL), while CA 19-9 performed poorly.
- The ADNEX model showed good discrimination between benign and borderline tumors (AUC 0.78; accuracy 74% at a 29% cutoff) and between borderline and malignant tumors (AUC 0.75; accuracy 73% at a 58% cutoff).
- SA demonstrated superior performance compared with ADNEX (AUC 0.80 vs 0.71).



Conclusion: Combining ADNEX risk estimates with expert subjective assessment and key sonomorphologic features improves prediction of borderline ovarian tumors preoperatively and supports fertility-preserving surgical planning.