

2022-RA-695-ESGO

COMPARISON OF ADNEX MODEL WITH GI-RADS ULTRASONIC SCORING SYSTEM IN EVALUATION OF ADNEXAL MASS

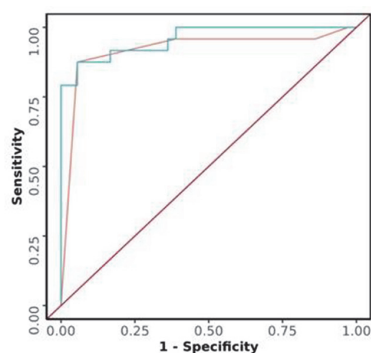
¹Bindiya Gupta, ¹Yasmin Ahmed, ²Anupama Tandon, ³Priyanka Gogoi. ¹Obstetrics and Gynecology, UCMS and GTB Hospital Delhi, Delhi, India; ²Radiology, UCMS and GTB Hospital Delhi, Delhi, India; ³Pathology, UCMS and GTB Hospital Delhi, Delhi, India

10.1136/ijgc-2022-ESGO.156

Introduction/Background Accurate preoperative diagnosis of adnexal mass helps to estimate the risk of malignancy and enables one to choose the best management approach. Prediction models have been developed to assist clinicians to triage patients to appropriate treatment pathways; and both ADNEX and GI-RADS have shown good accuracy; no study has been done comparing the two systems. The main objective was to evaluate and compare the diagnostic accuracy of Assessment of Different Neoplasias in the Adnexa (ADNEX) Model and Gynecology Imaging Reporting and Data System (GI-RADS) in preoperative assessment of adnexal masses taking histopathology as gold standard.

Methodology In this analytical study, sixty patients more than 14 years of age undergoing surgery for adnexal masses were assessed with transabdominal and transvaginal ultrasound 2–3 days prior to surgery. In cases where surgery was not possible, biopsy was performed to confirm histology. Pregnant women, women with previously established ovarian pathology were excluded. Score probability of the Assessment of Different Neoplasias in the Adnexa (ADNEX) model and Gynaecology Imaging Reporting and Data System (GI-RADS) category was calculated based on the ultrasound parameters of adnexal mass.

Results For ADNEX model sensitivity, specificity, positive predictive value (PPV), negative predictive value (NPV) and accuracy was 87.50%, 91.7%, 87.50%, 91.7% and 90.0% respectively. The diagnostic performance of GI-RADS category in terms of sensitivity, specificity, PPV, NPV and accuracy was 95.8%, 61.1%, 62.2%, 95.7% and 75.0% respectively. Overall the diagnostic performance of ADNEX model was better compared to GI-RADS in terms of specificity and positive predictive value with significant difference ($p < 0.05$). The Area under curve (AUC) was 0.957 and 0.919 for ADNEX and GIRADS respectively ($p = 0.252$).



Comparison of ADNEX model with GI-RADS — GI-RADS Score AUC GIRADS : 0.919
— ADNEX Score AUC ADNEX model : 0.957

Abstract 2022-RA-695-ESGO Figure 1

Conclusion To conclude, both ADNEX and GI-RADS system had satisfactory diagnostic performances and high negative

predictive values. However, the ADNEX model showed better specificity and positive predictive value compared to GI-RADS.

2022-RA-727-ESGO

PERFORMANCE OF THE IOTA ADNEX MODEL IN DIFFERENTIATING BETWEEN BENIGN AND MALIGNANT ADNEXAL LESIONS IN A PORTUGUESE POPULATION

^{1,2}André Borges, ³Patricia Pinto, ³Paula Ambrósio, ³Raquel Condeço, ¹Ana Martins, ⁴Rita Passarinho, ³Maria José Bernardo, ^{3,5,6}Dusan Djokovic. ¹Obstetric and Gynecology, CHLO, Lisbon, Portugal; ²Faculdade de Ciências da Saúde, Universidade da Beira Interior, Covilhã, Portugal; ³Gynecology and Obstetrics (MAC), CHULC, Lisboa, Portugal; ⁴Obstetrics and Gynecology, HVFX, Vila Franca de Xira, Portugal; ⁵NOVA Medical School, NOVA University of Lisbon, Lisbon, Portugal; ⁶Hospital CUF Descobertas, Lisbon, Portugal

10.1136/ijgc-2022-ESGO.157

Introduction/Background The Assessment of Different Neoplasias in the adnexa (ADNEX) risk model was developed by clinicians and statisticians from the International Ovarian Tumor Analysis (IOTA) group to assist the diagnosis of ovarian cancer in patients who have at least one persistent adnexal tumor and are considered to require surgery. This study aimed to evaluate the diagnostic accuracy of the ADNEX model in 3 Portuguese tertiary referral centers.

Methodology The study was conducted between January 2016 and December 2020 and included consecutive non-pregnant ≥ 18 -year-old patients with adnexal masses diagnosed at our units and submitted to surgery within 6 months after the ultrasound diagnosis. All scans were performed by IOTA-certified sonologists. The lesions were prospectively classified using the ADNEX model malignancy risk threshold set at $\geq 10\%$. By using the histological classification as the main outcome measure, the ADNEX sensitivity, specificity and accuracy were determined for malignant adnexa pathology and its subtypes.

Results This multicenter analysis involved 449 patients – 345 with benign and 104 with malignant lesions (35 borderline ovarian tumors [BOT], 25 stage I, 37 stage II – IV primary ovarian cancer and 7 secondary metastatic cancer to the ovary). Sensitivity, specificity and accuracy of the ADNEX model (with known CA-125 level in all cases) are shown in the accompanying table for global adnexal malignancy and specific subtypes. Regarding the frequent misclassified lesions, cystadenoma and cystadenofibroma were the most common histological entities misinterpreted as BOT (39/56), while 5/10 misinterpreted BOTs were considered invasive malignancies and another 5/10 benign lesions. Only 2/8 metastatic lesions were correctly classified.

Abstract 2022-RA-727-ESGO Table 1 Performance of the IOTA ADNEX model in a Portuguese population

ADNEX measure of validity	All malignancies	BOT	Stage I	Stage II – IV	Metastases
Sensitivity, % (95%CI)	94.2 (87.9 – 97.9)	65.7 (47.8 – 80.9)	32.0 (14.9 – 53.5)	89.2 (74.6 – 97.0)	28.6 (3.7 – 71.0)
Specificity, % (95%CI)	77.4 (72.6 – 81.7)	86.4 (82.8 – 89.5)	95.3 (92.8 – 97.1)	93.7 (90.9 – 95.8)	98.6 (97.1 – 99.5)
Accuracy, % (95%CI)	81.3 (77.4 – 84.8)	84.8 (81.2 – 88.0)	91.8 (88.9 – 94.1)	93.3 (90.6 – 95.5)	97.6 (95.7 – 98.8)