

## **Comparison of Risk Of Malignancy Indices and Assessment of Different Neoplasias in the Adnexa (ADNEX) Model as preoperative malignancy evaluation methods for adnexal masses**

### **Aim**

Preoperative evaluation of adnexial masses is crucial for decision processes of preoperative preparation. It is also directly related to prognosis. In this study, we aimed to evaluate the performances of versions of Risk of Malignancy Index (RMI) and Assessment of Different Neoplasias in the Adnexa (ADNEX) model for diagnosis of malignancy.

### **Materials and Method**

We retrospectively evaluated patients who applied with adnexial mass to our tertiary gynecological center between 1st of September, 2014 and 30th of July, 2016.

Of 206 patients, 15 were excluded due to missing CA 125 and ultrasonographic measurement and recurrent ovarian cancer diagnoses.

191 patients were included into the study. Demographic, ultrasonographic data and CA-125 values were all recorded and RMI I to IV scores and malignancy risk percents for ADNEX model were calculated. Three cut-off values for malignancy probabilities (5%, 10%, and 15%) were applied for ADNEX model. Results were compared to postoperative pathological diagnoses.

**FINDINGS.** Sensitivity (SEN), specificity (SPE), positive predictive value (PPV), and negative predictive value (NPV) were 66%, 88.4%, 68.6%, and 87.1% for RMI I, 75.5%, 78.3%, 57.1%, and 89.3% for RMI II, 66%, 88.4%, 68.6%, and 87.1% for RMI III, and 67.9%, 90.6%, 73.5 and 88% for RMI IV. For ADNEX model, SEN, SPE, PPV, and NPV values were 98.1%, 46.4%, 41.3%, and 98.5% for cut-off value of 5%, 94.3%, 63%, 49.5%, and 96.7% for cut-off value of 10%, and 94.3%, 72.5%, 56.8%, and 97.1% for cut-off value of 15%.

**CONCLUSION.** Results of versions of RMI were similar to those in the literature in terms of specificity, but lower in terms of sensitivity. Sensitivity and specificity values for ADNEX model were similar to those of the literature. Although sensitivity of ADNEX model were higher than those of versions of RMI, specificity values were lower. Future prospective studies could be performed to evaluate diagnostic performances of those indices and to develop newer indices in terms of better SEN and SPE.

**Keywords:** Adnexal mass; RMI;ADNEX.