

**Comparison of Various Risk of Malignancy Index (RMI) Scoring Systems for Cancer Risk Assessment among Filipino Women with Ovarian Masses**

*Muhamad Saiful Anwar*

*Department of Obstetrics and Gynecology, Mariano Marcos Memorial Hospital and Medical Center, Batac City, Ilocos Norte, Philippine*

**Background:** To determine the optimal cut-off point of the preoperative risk of malignancy index (RMI) and to characterize the population and determine the association of the following demographic and clinical characteristics with ovarian cancer. **Materials and Methods:** 172 operated women were assessed retrospectively. RMI of 1, 2, 3 and 4; cut-off values for an effective benign or malignant differentiation together with sensitivity, specificity, negative and positive predictive values were calculated. **Results:**

This cohort study compared the Risk of Malignancy Index (RMI) scoring system (RMI1, RMI2, RMI3 and RMI4). Based on the histological examination of the surgical specimens of 172 patients, 38 (22.09%) had malignant and 134 (77.91%) had benign ovarian masses. Age, body mass index and menopausal status were associated with malignancy.

The optimal cut off points of RMI1, RMI2, RMI3 and RMI4 based on ROC curve analysis were as follows: 72.29, 284.49, 254.52 and 284.49 respectively. RMI 2 and RMI 4 have the highest specificity of 85.1% (CI: 77.9% -90.6%), highest positive predictive values of 59.2% (CI: 47.3-77.7) and highest positive likelihood ratio of 5.11 (CI: 3.28-7.95) while RMI 1 has the highest sensitivity of 86.8% (CI: 0.719-0.956) and highest negative predictive value of 95.3 (CI: 88.7 - 96.9). **Conclusions:** The RMI scoring systems are recommended to provide an objective assessment of the underlying malignant potential hence can be the test of choice in the preoperative evaluation of the adnexal mass.