



P116. HE4 AND CA125 AND ROMA INDEX IN THE DIFFERENTIAL DIAGNOSIS OF OVARIAN MASSES

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Context: Ovarian masses, a common finding among pre- and post-menopausal women, can be benign or malignant. Their accurate differential diagnosis still remains major challenge.

Objective: This study was designed to evaluate diagnostic utility of HE4, CA125 and ROMA algorithm in the preoperative differentiation of benign ovarian tumors (BOT) from epithelial ovarian cancer (EOC) depending on the menopausal status.

Methods: To measure serum HE4 and CA125 the electrochemiluminescence (ECL) technique has been applied.

Patient(s): Women with BOT (n=128) and EOC (n=96) were served as control and study group. Tumors were classified according to the WHO and FIGO criteria.

Intervention(s): In order to identify patients with EOC, the best cutoff point of CA125, HE4 and ROMA score with regard to best values of sensitivity, specificity, PPV and NPV were evaluated.

Main Outcome: In the study we established new cutoff values specific to the examined population for each biomarker, and verified them using ROC analysis to calculate the optimal cutoffs. The best cutoff points distinguishing EOC vs. BOT for HE4, CA125 and ROMA were: 72.3 pmol/l; 62.2 U/ml and 20.1%, respectively.

Measure(s): The AUC for HE4, CA125 and ROMA for all EOC patients were: 0.895; 0.879 and 0.918, respectively.

Result(s): At established new optimal cutoff values for ROMA, we found higher sensitivity and specificity in postmenopausal compared to premenopausal women (89.0 and 95.9% vs. 86.8 and 89.1%, respectively). ROMA also showed significant difference in comparison with HE4 and CA125 for discriminating BOT and EOC in all the patients and postmenopausal women.

Conclusions: Concisely, our study shows that ROMA algorithm rather than CA125 or HE4 alone, more accurately selects patients with a high risk of EOC which enables to direct them to centres specializing in oncological gynaecology.

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