Is HE4 a new biomarker of ovarian cancer in Korean?

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목적: Ovarian cancer is first cause of death from gynecological cancer in the western countries. In many recent studies, HE4 is elevated in serum from ovarian malignancy patients, demonstrating a similar sensitivity to CA125, but increased specificity for ovarian malignant tumors. In this study, we’d like to make a comparison between level of HE4 and CA125 in ovarian cancer patient and benign ovarian mass patient and evaluate possibility of use HE4 as cancer biomarker in Korean women.

방법: The study population included 94 women. 32 patients were diagnosed ovarian malignancy and 62 patients were confirmed benign ovarian tumor like endometrioma and adenoma. All women's diseases were confirmed by histopathologic evaluation. Serum samples were obtained from each individual on the day before operation and were stored frozen until they were tested. Serum HE4 levels were evaluated using HE4 EIA assay (Fujiregio diagnostics, Malvern, PA) and the assays were run according to the manufacture’s manual.

결과: The median CA125 and HE4 level were significantly higher among ovarian cancer patients as compared with benign subjects (CA125; 1383.67±253.14 U/mL vs. 41.28±56.31 U/mL, p=0.000 / HE4; 394.64±483.111 vs. 29.91±33.17, p=0.000). The receiver operating characteristics curve analysis on benign controls and ovarian cancer patients had a higher area under the curve when compared with CA125 (0.93 vs. 0.85).

결론: HE4 seems to be a useful ovarian tumor marker. Measuring serum concentrations both of HE4 and CA125 may increases the accuracy of ovarian cancer.