

Assessment of the Biologic Markers Prostatic Specific Antigen (PSA), Prostate Specific Membrane Antigen (PSMA) and Human Epidermal Receptor-2 (HER-2) in Prostate Cancer after Surgery.

Division of ¹ Hematology-Oncology, Departments of Medicine, ² Pathology, and ³ Urology Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, Korea

*In Gyu Hwang ¹, Chul Won Jung ¹, Jeeyun Lee ¹, Byeong-Bae Park ¹, Yong Sang Hong ¹, Sarah Park ¹, Sang Cheol Lee ¹, Sang Yong Song ², Won Seog Kim ¹, Ho Yeong Lim ¹, Han Yong Choi ³

ABSTRACT The use of molecular markers to supplement clinical information concerning the biologic aggressiveness of prostate carcinoma may allow better prediction of the outcome of individual patients. This study was designed to evaluate the potential of the cellular markers PSA, PAP, PSMA, and HER-2 as adjuncts to the commonly available parameters of tumor grade, stage, serum PSA to predict the recurrence after radical prostatectomy. Tissue microarrays were constructed from the specimens of prostate carcinoma from 86 men who underwent radical prostatectomy for prostate cancer. The immunostainings for PSA, PAP, PSMA, HER-2 were performed. Expressions of PSA, PAP, PSMA, and HER-2 were increased in 98% (84/86), 99% (85/86), 72% (48/67), and 78% (52/67) of the tumor specimens, respectively. No variables tested were associated with clinical or biochemical relapse after prostatectomy. The PSA expression was significantly correlated with high tumor volume ($p=0.001$) and large tumor size ($p=0.007$). The relevance of the markers, PSA, PAP, PSMA, or HER-2 to the recurrence of prostate cancer seems to be low based on the study. **Key Words:** Prostate; Prostatic Specific Antigen; Prostate Specific Membrane Antigen; Human Epidermal Receptor-2

Clinicopathologic Characteristics and Prognostic Value of Triple negativity in Node-negative Early Breast cancer

¹Department of Internal Medicine, Seoul National University College of Medicine, Seoul, Korea

Ji-Young Rhee¹, In-Sil Choi ¹, Byung-Soo Kim¹, Do-Youn Oh¹,
Jee Hyun Kim¹, Seock-Ah Im¹, Tae-You Kim¹, In Ae Park², Yung-Jue Bang¹

Background : Triple negative (TN) basal-like breast cancer (negative for ER, PR, Her2/neu) represents different phenotype with unique clinical and pathologic features. The purpose of this study was to determine the clinicopathologic characteristics and the prognostic significance of triple negativity in node negative early breast cancer in single institute. **Methods :** 648 patients with node-negative early breast cancer among a cohort of 1326 women who underwent breast cancer surgery between January 2000 and June 2003 at the Seoul National University Hospital were reviewed retrospectively. Clinicopathologic variables were analyzed including age, T stage, hormone receptor (HR), HER-2, endovascular or lymphatic tumor emboli, nuclear grade, histologic grade, p53, bcl-2, Ki-67, EGFR and relapse free survival (RFS) Result: The median age was 47 year old (range: 22-84 year old). 273 patients (36.2%) received breast conserving surgery followed by adjuvant radiotherapy. 394 patients (60.8%) received adjuvant chemotherapy (CMF:77.9%, AC:10.4%, FAC: 6.1%, others: 4.6%, unknown:1%) The median follow-up duration was 48.5 months. 52 patients (8%) were relapsed. (Locoregional relapse: 25%, distant metastasis :46.1%, locoregional relapse and distant metastasis: 5.8% contralateral breast:23.1%). Patients with triple negativity were 136 (20.9 % of node negative patients). They showed more aggressive clinicopathologic features than other patient populations. (more younger than 35 years old, $p=0.007$, higher histologic grade, $p<0.001$, more positive for p-53 ($p=0.006$), Ki-67 ($p<0.001$) and EGFR ($p=0.001$), more negative for Bcl-2 ($p<0.001$)) And RFS of patients with triple negativity was significantly shorter than other patient populations (median RFS : 45.6 months vs. 47.65 months, $p<0.0001$). In addition, Age <35 years($p=0.001$), presence of endovascular or lymphatic tumor emboli ($p=0.030$), and triple negativity($p=0.001$) were significant prognostic factors for RFS on multivariate analysis. **Conclusion :** Patients with triple negativity in node-negative early breast cancer show more aggressive clinicopathological features and shorter RFS