

SIGNIFICANCE OF SUSPICIOUS LESIONS AT TRANSRECTAL ULTRASONOGRAPHY IN MEN WITH SERUM PROSTATE-SPECIFIC ANTIGEN LEVELS OF <20 ng/ml

Hong Bang Shim¹, Sang Eun Lee², Hyoung Keun Park³, and Ja Hyeon Ku¹

¹Department of Urology, Seoul Veterans Hospital, Seoul; ²Department of Urology, Seoul National University College of Medicine, Seoul; ³Department of Urology, DongGuk University International Hospital, Goyang, Korea

Aims and background: The objective of the study was to evaluate the significance of suspicious lesions at transrectal ultrasonography for prostate cancer diagnosis.

Patients and methods: A total of 1,009 men with a mean age of 65.0 ± 7.7 years (range, 40.0-79.0) constituted the study cohort and 265 (26.3%) were diagnosed with prostate cancer on initial biopsy.

Results: The cancer detection rate was higher in patients with suspicious lesions (33.2%) than in those with no suspicious lesion (21.5%) ($P < 0.001$). Pathologic findings of the needle biopsy samples also showed more aggressive characteristics in men with suspicious lesions ($P < 0.05$). Of 413 men with suspicious lesions, additional lesion-directed biopsies were

performed in 133 patients. The positive predictive value of additional lesion-directed biopsy was 18.0%. Of patients who had positive cores on lesion-directed biopsies, all were also found to have positive cores on random biopsies, and no patient had positive cores only on lesion-directed biopsies. The Gleason score was not changed by the findings of lesion-directed biopsies in these patients.

Conclusions: Our findings do not provide a rationale to recommend the addition of lesion-directed biopsy in patients with suspicious lesions at transrectal ultrasonography. However, men with suspicious lesions at transrectal ultrasonography had a higher risk of being diagnosed with prostate cancer.

Key words: prostate biopsy, prostate neoplasms, prostate-specific antigen, transrectal ultrasonography.