Validation of nomograms predicting lymph node involvement in patients with prostate cancer undergoing extended pelvic lymph node dissection.

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Abstract
Our aim was to validate Briganti’s nomograms predicting the probability of lymph node involvement (LNI) in prostate cancer (PCa). Clinicopathological data of 256 PCa patients who underwent extended pelvic lymph node dissection (ePLND) and radical prostatectomy (RP) were obtained from two Bulgarian institutions. Predicted probabilities of LNI were assessed using Briganti’s nomograms based on ePLND. In addition to the established basic LNI predictors, Briganti’s nomograms included the number of lymph nodes removed (version 2006) and the number and percentage of positive biopsy cores (versions 2007 and 2012). The accuracy of these nomograms was compared with the updated Memorial Sloan-Kettering Cancer Center (MSKCC) nomogram (version 2011). Receiver-operating characteristics analysis was done to assess the discriminative ability of each of the nomograms applied. All of Briganti’s nomograms showed a higher predictive accuracy as compared with the updated MSKCC nomogram. The respective AUC values were calculated as 0.847, 0.837, 0.858 and 0.875 for the four Briganti nomograms, and 0.770 for the updated MSKCC nomogram, respectively. Despite the potential for heterogeneity in patient selection and management, all predictions demonstrated high concordance with actual observations. Compared with other similar prognostic tools the updated Briganti nomogram (version 2012) showed the highest predictive accuracy and should therefore be preferred. © 2014 S. Karger AG, Basel.

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