Updated nomogram to predict pathologic stage of prostate cancer given prostate-specific antigen level, clinical stage, and biopsy Gleason score (Partin tables) based on cases from 2000 to 2005.

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Abstract

OBJECTIVES: To update the 2001 "Partin tables" with a contemporary patient cohort and revised variable categorization, correcting for the effects of stage migration.

METHODS: We analyzed 5730 men treated with prostatectomy (without neoadjuvant therapy) between 2000 and 2005 at the Johns Hopkins Hospital. Average age was 57 years. Multivariable logistic regression was used to estimate the probability of organ-confined disease, extraprostatic extension, seminal vesicle involvement, or lymph node involvement. Predictor variables included preoperative prostate-specific antigen (PSA) level (0 to 2.5, 2.6 to 4.0, 4.1 to 6.0, 6.1 to 10.0, and greater than 10.0 ng/mL), clinical stage (T1c, T2a, and T2b/T2c), and biopsy Gleason score (5 to 6, 3 + 4 = 7, 4 + 3 = 7, or 8 to 10). Bootstrap resampling was used to generate 95% confidence intervals for predicted probabilities.

RESULTS: Seventy-seven percent of patients had T1c, 76% had Gleason score 5 to 6, 80% had a PSA level between 2.5 and 10.0 ng/mL, and 73% had organ-confined disease. Nomograms were developed for the predicted probability of pathologically organ-confined disease, extraprostatic extension, seminal vesicle invasion, or lymph node involvement. The risk of non-organ-confined disease increased with increases in any individual prognostic factor. The dramatic decrease in clinical stage T2c compared with the patient series used in the previous models resulted in T2b and T2c being combined as a single predictor in the nomogram.

CONCLUSIONS: These updated "Partin tables" were generated to reflect trends in presentation and pathologic stage for men diagnosed with clinically localized prostate cancer at our institution. Clinicians and patients can use these nomograms to help make important decisions regarding management of prostate cancer.

Comment in

Should physicians use the updated Partin tables to predict pathologic stage in patients with prostate cancer? [Nat Clin Pract Urol. 2007]

Re: Updated nomogram to predict pathologic stage of prostate cancer given prostate-specific antigen level, clinical stage, and biopsy Gleason score (Partin Tables) based on cases from 2000 to 2005. [Eur Urol. 2007]