

DIFFERENCES IN THE PROGNOSTIC VALUE OF THE PROSTATE VOLUME, TUMOR VOLUME, AND TUMOR PERCENTAGE BETWEEN PATHOLOGIC T2 AND T3 RADICAL PROSTATECTOMY SPECIMENS

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Purpose: No consensus exists regarding the prognostic roles of the prostate volume (PV), tumor volume (TV), and tumor percentage (TP) as a function of the pathologic T stage in radical prostatectomy (RP) specimens. We therefore evaluated the PV, TV, and TP as independent predictors of biochemical recurrence (BCR) after RP.

Materials and Methods: This study included 173 patients who underwent RP between February 2005 and May 2008. The values of the PV, TV, TP, and other clinicopathologic factors were evaluated. Statistical analysis was performed with a chi-square test, Fisher's exact test, and a Cox proportional hazard model.

Results: In the T2 group, the BCR-free survival rates in patients with a lower PV were significantly lower than in those having a higher PV ($p = 0.009$). Multivariate analysis showed that the BCR was significantly associated with a lower PV ($p = 0.003$) in the T2 group. In the T3 group, patients with a higher TV and TP had a significantly shorter mean BCR-free survival than in those having a lower TV and TP ($p = 0.043$ and $p = 0.007$, respectively).

Conclusions: A lower PV in the T2 RP specimens, and a higher TV and TP in the T3 RP specimens were associated with a significantly worse outcome, suggesting a potential clinical role for these parameters. The post-operative PV, TV, and TP could be significant predictors of outcome after RP.