Gleason score at the margin can predict biochemical recurrence after radical prostatectomy, in addition to preoperative PSA and surgical margin status.

Özkanli SS¹, Zemher IE, Yildirim A, Gür HD, Balbay MD, Şenol S, Özkanli AO, Alkan E, Zenginkinet T, Aydin A, Çaşkurlu T.

Abstract

BACKGROUND/AIM: To evaluate the relation between biochemical recurrence (BCR) of prostate cancer and the extent of positive surgical margins (PSMs), Gleason score (GS) of the tumor at the margins, and preoperative prostate-specific antigen (PSA) levels.

MATERIALS AND METHODS: A total of 94 patients who underwent radical prostatectomy were recruited for this study and received postoperative follow-up care for 2 years. All specimens were evaluated for surgical margin status, PSM length, GS at positive margin, size of tumor, multifocality, invasion of seminal vesicle, lymphovascular invasion, and perineural invasion. PSM was defined as a prostate tumor.

RESULTS: Out of 94 patients, 34 patients (36.2%) had PSMs and 46 patients (48.9%) had BCR. A statistically significant relation between having a high risk of BCR of prostate cancer and having high preoperative PSA levels (P < 0.001), PSMs (P < 0.001), or a high GS at the surgical margin (P = 0.024) was found.

CONCLUSION: High preoperative PSA levels, PSMs, and tumors with high GS at the margins have a poor prognostic impact, and they correlate with a higher rate of BCR. Close follow-up of patients with PSMs with high GS and high levels of preoperative PSA is recommended.

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