

curious as to the likelihood of the cancer occurring now that they have been disease-free for several years. Using this current version of the nomogram, you can accurately inform the patient. An example cited in the text is a hypothetical patient operated on in 2004, with a PSA of 8.2 and a Gleason 7 cancer. The patient has extracapsular extension and positive margins, but no seminal vesicle or lymph node involvement. The patient's initial 10-year progression-free survival is 80%. If the patient returns 60 months after RP and continues to have an undetectable PSA, the 10-year progression-free probability increases to 91%.

Beyond the practical utility of the nomogram, there is important information in the article relating to the risk of recurrence in the years after surgery. The average patient in the study, if they were disease-free at 7 years, still had a 9% risk of progression over the following 8 years. However, if the patient was disease-free at 10 years, the likelihood of progression decreased dramatically to 3% over the subsequent 5 years. Many surgeons follow up patients for 5 to 10 years and then turn management back to the internist. These data would support following up the patient for 10 years, since that is when the greatest risk of recurrence occurs.

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Long-term Prognostic Significance of Primary Gleason Pattern in Patients With Gleason Score 7 Prostate Cancer: Impact on Prostate Cancer Specific Survival

Tollefson MK, Leibovich BC, Slezak JM, et al (Mayo Clinic, Rochester, Minn)
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Purpose.—We determined the long-term clinical significance of primary Gleason pattern in patients with Gleason score 7 prostate cancer.

Materials and Methods.—We reviewed the records of all patients who underwent bilateral pelvic lymph node dissection and radical retropubic prostatectomy for Gleason score 7 prostate cancer at our institution. All patients who underwent adjuvant hormonal or radiation therapy were excluded from analysis. Patients were monitored for biochemical failure, that is PSA progression, systemic recurrence and cancer specific survival.

Results.—We identified 1,688 patients who met admission criteria, of whom 1,256 (74.4%) had primary Gleason pattern 3 and 432 (25.6%) had primary Gleason pattern 4. Median followup was 6.9 years. At 10 years primary Gleason pattern 3 was associated with increased biochemical recurrence-free survival (48% vs 38%, $p < 0.001$), lower systemic recurrence (8% vs 15%, $p < 0.001$) and higher cancer specific survival (97% vs 93%, $p = 0.013$) for Gleason primary grades 3 and 4, respectively. All of these end points remained significant on multivariate analysis when controlling for preoperative PSA, seminal vesicle involvement, margin status, DNA ploidy and TNM staging. PSA doubling time was shorter in patients with primary Gleason pattern 4 (1.64 vs 1.01 years). Systemic recurrence and cancer specific survival were associated with a PSA doubling time of less than 1 year.

Conclusions.—Gleason score 7 prostate cancer is a heterogeneous entity. We should continue to stratify patients according to primary Gleason pattern. Patients with Gleason score 4 + 3 prostate cancer have more aggressive disease and experience higher rates of biochemical failure, systemic recurrence and cancer specific death.

► This article again shows the power of the Gleason classification to identify men with aggressive prostate cancer. This analysis specifically addressed patients with Gleason score 7 disease and reasserted the importance of primary Gleason pattern as the main predictor for surgical outcome. It is important for every urologist to recognize that Gleason 4 + 3 prostate cancer is a more aggressive entity than Gleason 3 + 4.

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The Association Between Total and Positive Lymph Node Counts, and Disease Progression in Clinically Localized Prostate Cancer

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Purpose.—We examined the association between the number of LNs removed, the number of positive LNs and disease progression in patients undergoing pelvic lymph node dissection and radical retropubic prostatectomy for clinically localized prostate cancer.

Materials and Methods.—We analyzed 5,038 consecutive patients who underwent radical retropubic prostatectomy between 1983 and 2003. Clinicopathological parameters, including the administration of neoadjuvant hormonal therapy, preoperative prostate specific antigen, specimen Gleason score, surgeon and pathological stage, were collected prospectively in our prostate cancer database. We excluded men treated with radiation or chemotherapy before surgery. BCR was defined as 2 postoperative prostate specific antigen increases greater than 0.2 ng/ml. Cox models were used to determine whether the number of nodes removed or the number of positive nodes predicted freedom from BCR after adjustment for prognostic covariates.

Results.—The 4,611 eligible patients had a median of 9 LNs (IQR 5 to 13) removed. Positive nodes were found in 175 patients (3.8%). Overall the number of LNs removed did not predict freedom from BCR (HR per additional 10 nodes removed 1.02, 95% CI 0.92 to 1.13, $p = 0.7$). Results were similar in patients receiving and not receiving neoadjuvant hormonal therapy. Finding any LN involvement was associated with a BCR HR of 5.2 (95% CI 4.2 to 6.4, $p < 0.0005$). However, in men without nodal involvement an increased number of nodes removed correlated significantly with freedom from BCR ($p = 0.01$).

Conclusions.—Nodal disease increased the risk of progression. Extensive lymphadenectomy enhances the accuracy of surgical staging. However, we