Editorial Comment

The authors describe the cumulative incidence of acute urinary side effects and delayed urinary complications of prostate brachytherapy. The cumulative incidence of urethral stricture was similar to what has been previously reported - just under 5% (1). A review of the grade 2-4 complications reveals them all to be problems that are very difficult to manage. Urethral strictures in radiated tissue rarely have a durable response to optical urethrotomy. Urinary incontinence after brachytherapy is much more troublesome to treat than after radical prostatectomy. Moderate to severe dysuria has no good solution. When examining Figure-2 in the article - a graph of the cumulative incidence of late urinary complications - one sees a trend common to most radiation series. That trend is that complications continue to accrue at a steady rate through the end of the follow-up period. To measure the true risk of these complications the follow-up needs to be carried out much further. Urethral complications of radiation therapy are not rare and continue to be a vexing problem to manage.

Reference

1. Elliott SP, Meng MV, Elkin EP, McAninch JW, Duchane J, Carroll PR; CaPSURE Investigators: Incidence of urethral stricture after primary treatment for prostate cancer: data From CaPSURE. J Urol. 2007; 178: 529-34; discussion 534.

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Long-term efficacy of maintenance bacillus Calmette-Guérin versus maintenance mitomycin C instillation therapy in frequently recurrent TaT1 tumours without carcinoma in situ: a subgroup analysis of the prospective, randomised FinnBladder I study with a 20-year follow-up

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Background: The long-term prospective data on bacillus Calmette-Guérin (BCG) and mitomycin C (MMC) instillation therapy are limited. Objective: To compare the long-term benefit of BCG and MMC maintenance therapy in patients with recurrent bladder carcinoma.
Design, Setting, and Participants: Eighty-nine patients with frequently recurrent TaT1 disease without carcinoma in situ (CIS) were eligible. Originally, the patients were enrolled in the prospective FinnBladder I study between 1984 and 1987 and randomised to receive BCG or MMC. Both regimens involved five weekly instillations, followed by monthly instillations for 2 yr. Because of alkalinising the urine and adjusting the dose to bladder capacity, the average concentration of MMC was low: 30-40 mg in 150-200 ml of phosphate buffer. Overall median follow-up time was 8.5 yr, whereas the median follow-up time of the patients who were still alive was 19.4 yr.
Measurements: Primary end points were time to first recurrence and overall mortality. Secondary end points were progression and disease-specific mortality.
Results and Limitations: Thirty-six of 45 patients (80.0%) in the MMC group experienced recurrence in contrast to 26 of 44 patients (59.1%) in the BCG group. This finding was reflected in significantly lower cumulative

incidence estimates in the BCG group (p=0.005). There was a weak trend for fewer progressions (p=0.1) and cancer-specific deaths (p=0.2) in the cumulative incidence analysis, as 4 patients versus 10 patients progressed and 4 patients versus 9 patients died from the disease in the BCG group versus the MMC group, respectively. No difference existed in the overall mortality. The study population, however, was too small for conclusive evidence about progression or survival.
Conclusions: An intensive intravesical BCG immunotherapy results in a sustained and significant long-term reduction in recurrence in frequently recurrent bladder carcinoma. The relatively low progression rate during the long follow-up suggests that it may be difficult to show significant differences in overall mortality with a substantially larger but otherwise similar study population.
Trial Registration: Registration was not considered to be necessary at this stage of the follow-up because the study was initiated as early as 1984 and the last randomisation took place in July 1987, that is, long before the current requirements concerning study registrations were implemented.

Editorial Comment

These data show the long-term results of a comparative trial that was initiated in 1984 in patients with intermediate risk bladder cancer. The present publication with roughly 20 years of overall follow-up focuses on the durability of the response and the possible impact of instillation therapy on progression and mortality. The recurrence rate before therapy was 2.54 and 1.99 in the BCG and the MMC arms, respectively, showing more rapidly recurrent patients in the BCG arm. The results are impressive; even with this extremely long follow-up and as few as 45 patients in the MMC arm and 44 patients in the BCG arm there was a statistically sound advantage of BCG therapy with regard to recurrence. Furthermore, this advantage was sustained over time with the probability of recurrence in the BCG arm vs. MMC was 50 vs. 70% after 5 years, 57 vs. 80% after 10 years and 59 vs. 80% after 15 years of follow-up, respectively (p = 0.005). Due to the low numbers of patients, data on progression and mortality should be regarded with caution and lack significance. Still, fewer patients had progression (4 vs. 10 pts.) and died of bladder cancer in the BCG arm than in the MMC trial arm. In retrospective, one might criticize the suboptimal monthly maintenance regimen in the BCG arm and the quite low concentration of MMC used in this trial. Still, these data support other results on the sustained long-term efficacy of BCG.

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An individual patient data meta-analysis of the long-term outcome of randomised studies comparing intravesical mitomycin C versus bacillus Calmette-Guérin for non-muscle-invasive bladder cancer

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Background: Patients with non-muscle-invasive bladder cancer with an intermediate or high risk need adjuvant intravesical therapy after surgery. Based largely on meta-analyses of previously published results, guidelines