Methods: Between 1995 and 2001, 63 patients were evaluated who declined to undergo a planned cystectomy, because they achieved a complete clinical response to neoadjuvant cisplatin-based chemotherapy. Patient, tumor, and treatment features were assessed prospectively, and correlated in univariate and multivariate analyses with overall survival. The median follow-up was 86 mo and all patients were followed for more than 5 yr.
Results: Forty patients (64%) survived, with 54% of them having an intact functioning bladder. The number and size of invasive tumors were strongly associated with overall survival. The most significant treatment variable predicting better survival was complete resection of the invasive tumor on re-staging transurethral resection before starting chemotherapy. Of 23 patients (36%) who subsequently died of disease, 19 (30%) relapsed with invasive cancer in the bladder. Over 90% of surviving patients had solitary, small, and low-stage invasive tumors completely resected, and 83% survived without relapses in the bladder.
Conclusions: Selected patients with muscle-invasive bladder cancers may survive after transurethral resection and neoadjuvant chemotherapy, and tumor features can identify which patients responding completely to chemotherapy may survive without cystectomy.

Editorial Comment

In Northern America neoadjuvant chemotherapy before radical cystectomy became standard few years ago. What happens if patients (or their doctors, the medical oncologists who deliver chemotherapy) refuse radical cystectomy if a complete response is found in the bladder? This paper gives some very important answers.

The study group was well chosen with only patients having residual muscle-invasive tumors receiving neoadjuvant chemotherapy. After at least 85% of the planned four cycles of cisplatinum-based chemotherapy, complete clinical response and negative transurethral resection (TUR) of the primary tumor site, these patients were deemed complete responders and were evaluable for follow-up in this group.

The good news is that 64% of these patients survived at least 5 years and 54% of them with functioning bladders. The bad news is that 36% died of bladder cancer after a mean of 32 months. The survivors could be identified by their good prognostic factors, namely single ($p < 0.001$), or small tumor ($p < 0.01$), complete restaging TUR ($p = 0.02$), and noninvasive stage after relapse ($p = 0.05$). Thus patients with worse tumor features, despite responding completely to chemotherapy, should be strongly advised to undergo radical cystectomy at the earliest convenience.

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Long-term rates of undetectable PSA with initial observation and delayed salvage radiotherapy after radical prostatectomy

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Background: Randomized trials have shown an improvement in progression-free survival rates with adjuvant radiation therapy (ART) after radical prostatectomy for patients with a high risk of cancer recurrence. Less is

known about the relative advantages and disadvantages of initial observation with delayed salvage radiation therapy (SRT).
Objective: To examine the results of SRT in a large single-surgeon radical prostatectomy series.
Design, Setting, and Participants: From a radical prostatectomy database, we identified 859 men with positive surgical margins (SM+), extracapsular tumor extension (ECE), or seminal vesicle invasion (SVI) who chose to defer ART. Following a period of initial observation, 192 ultimately received SRT for prostate-specific antigen (PSA) progression.
Measurements: Survival analysis was performed to examine the outcomes of initial observation followed by SRT.
Results and Limitations: In patients with SM+/ECE and SVI, the 7-yr PSA progression-free survival rates with observation were 62% and 32%, respectively. Among those who had PSA progression, 56% and 26%, respectively, maintained an undetectable PSA for 5 yr after SRT. The long-term rates of undetectable PSA associated with an SRT strategy were 83% and 50% for men with SM+/ECE and SVI, respectively. In the subset of 716 men who did not receive any hormonal therapy, the corresponding long-term rates of undetectable PSA were 91% and 75%, respectively.
Conclusions: Following radical prostatectomy, initial observation followed by delayed SRT at the time of PSA recurrence is an effective strategy for selected patients with SM+/ECE. Some patients with SVI may also benefit from this strategy. However, additional prospective studies are necessary to further examine the survival outcomes following SRT.

Editorial Comment

The debate goes on and on. Should a patient with positive surgical margins (SM+) or seminal vesicle infiltration (SVI) after radical prostatectomy be irradiated, and if so – when? This paper supports an affirmative standpoint. In short, positive surgical margins might have a relative benign course with a 62% PSA no progression rate if left untreated. In contrast, patients with SVI do worse with only 50% of them not showing up with increasing PSA during the 7-year follow-up. Thus, one may safely choose to wait until PSA becomes measurable after radical prostatectomy.

When should I offer adjuvant radiation if PSA shows up? The answer from this paper is – as soon as possible, because the final outcome was better if radiation started when PSA was < 1 ng/ml.

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