

# BLADDER CANCER TREATMENT - TO SAVE OR NOT TO SAVE

by: Gil Lederman, MD

Ongoing advocates of saving one's bladder after the diagnosis of bladder cancer compare survival rates as well as quality of life for those having undergone so-called conservative therapy. The latest data continues to show this to be an appealing option.

While standard therapy in the United States has been radical cystectomy - removal of the bladder - the cure rate remains about 50% due to the development of distant metastases after surgery.

Because of these disappointing surgery results including the morbidity and possible mortality as well as the quality of life issues of surgery, alternative forms of therapy have been sought. Bladder-conserving therapy is important to quality of life but the major issue is survival.

A recent paper by Kachnic et al published in The Journal of Clinical Oncology evaluated 106 patients with muscle-invading bladder carcinoma undergoing potential organ saving treatment.

The 106 patients had biopsy-confirmed muscle-invading bladder carcinoma and were entered between 1986 and 1993. Median age of the patients was 68 with a range of 36 to 88. Follow-up ranged from 0.3 to 8.2 years with a median of 4.4. Forty patients were followed for more than five years.

All patients received transurethral resection of the bladder tumor followed by chemotherapy and radiation. Chemotherapy consisted of Methotrexate, Vinblastin and Cisplatin as well as Cisplatin combined with concurrent external beam radiation therapy.

Cystectomy (removal of the bladder) was performed on patients with a marginal response after partial chemotherapy and radiation. The first segment of radiation was 3960 Centigray (cGy). Centigray is a measurement of radiation dose. Patients completing radiation went on for an additional 2520 cGy.

Pre-treatment evaluation included history, physical, chest x-ray, x-rays of the urinary system as well as blood testing, CT scans of the abdomen and bone scan. Those having distant metastases at the time of diagnosis were excluded from the study.

Urologic evaluation defined response to therapy as T0 if no tumor was visible at time of cystoscopy - internal viewing of the bladder - as well as biopsy being negative with no tumor cells being found in urine. Patients underwent routine cystoscopy every three months for two years and every six months thereafter.

Eighty-five of 106 patients completed the protocol. Five patients had cardiopulmonary events including blood clots in the lung in one patient, myocardial infarction in three patients and worsening of lung fibrosis in one patient which delayed or prevented protocol completion.

Of 76 patients who received chemotherapy and the complete course of external beam radiation therapy, no patient required cystectomy for treatment-related bladder morbidity. This suggests marked effectiveness of combined radiation and chemotherapy for bladder cancer.

Only one patient developed mild urinary incontinence defined as 'dribbling' not requiring the use of a pad. The authors noted "No patient has developed symptomatic urinary frequency."

"Of 106 patients entered on to this study, 52 (49%) are alive, 51 (48%) are without evidence of tumor and 36 (34%) have undergone a cystectomy (19 immediately following neo-adjuvant therapy and 17 for salvage of a subsequent recurrence). The actuarial five year overall survival rate is 52%, with 43% surviving with bladders preserved. Forty patients are under surveillance now at or greater than five years after treatment. The actuarial five year disease specific survival rate is 60%" the authors wrote.

Of those 76 patients who completed their full radiation and chemotherapy, the five year freedom from invasive bladder cancer recurrence is 79%.

Overall 75% of patients have tumor-free bladders at most recent follow up which is a median time of 64 months after treatment.

Distant metastases were diagnosed in 30 patients creating an actuarial rate of 34% in five years.

The authors noted that the 52% five year overall survival rate "is similar to recent conservative bladder preserving series."

This data should offer great encouragement to those with bladder cancer that effective non-invasive treatment is available - and, in fact, may be more effective if full-course radiation is carried out to all patients prior to surgical considerations.

Addendum:

Radiation and chemotherapy has been used for many years to treat bladder cancers. Many patients have had their bladders saved thanks to this technology. New advances such as stereotactic body radiosurgery allow us to focus the beam more precisely on the bladder. For some patients who have had incomplete or recurrent cancers despite therapy, body radiosurgery allows repeat treatment that is highly successful. Its success is predicated on the fact that the beams are given in a highly directed fashion and we can increase the dose per fraction. Usually then, less number of treatments is necessary. Our local control rate for bladder cancer remains high – approximately 85 to 90% in the treated field.

Body radiosurgery allows us to boost dose more accurately and safely in the bladder. We also can treat metastases around the bladder or distantly. Our local control with high dose fractionated stereotactic radiosurgery for bladder is very high. It allows a short course of focused radiation.

We have seminars open to the public about body radiosurgery on a monthly basis. We have a panel of experts to review each individual case. We also have a hot line at 212-CHOICES and you can e-mail question to [gil.lederman@rsny.org](mailto:gil.lederman@rsny.org).