Objectives: We reviewed our experience with partial cystectomy to assess local control and survival rates, and to identify pathologic predictors for recurrence. Methods: From 1995 to 2005, 25 patients with urothelial carcinoma underwent partial cystectomy with curative intent. As protocol, patients with primary solitary muscle-invasive bladder tumors underwent preoperative localized radiotherapy, administration of a single dose of intravesical chemotherapy at the time of partial cystectomy, and postoperative intravesical Bacillus Calmette-Guerin therapy. We reviewed clinical and pathologic data to identify variables associated with disease recurrence. Results: We analyzed data from 25 patient records meeting review criteria (72% male, mean age 65.1 ± 9.8 years). At time of transurethral resection of a bladder tumor (TURBT), all had a solitary primary T2 (68%) or T1HG (32%) lesion with no evidence of carcinoma in situ. At follow-up (mean 45.3 ± 30.7 months), 5-year recurrence-free, disease-specific, and overall survival rates were 64%, 84%, and 70%, respectively. At a mean of 18.0 ± 15.6 months, 8% of patients experienced intravesical non-muscle-invasive tumor recurrences and were treated with TURBT and intravesical chemotherapy. Twenty percent recurred with locally advanced tumors or visceral metastasis and were treated with systemic chemotherapy, local resection or cystectomy, or both. On univariate analysis, only tumor size at time of partial cystectomy (P = .03) was significantly associated with tumor recurrence. Conclusions: Partial cystectomy offers adequate control of localized invasive urothelial carcinoma in carefully selected patients with solitary primary tumors. Lifelong follow-up with cystoscopy and abdominal imaging is recommended to detect recurrence.

Editorial Comment: At a national level partial cystectomy is overused, and it appears that often the main indication is advanced age. I think this practice is wrong. A bad operation in a 60-year-old does not become a good operation in an 80-year-old. This series used apparent appropriate criteria for selection based on a solitary lesion without apparent carcinoma in situ. Despite this appropriate selection, advanced local recurrence developed in 20% of patients, of whom 80% died of bladder cancer despite attempted salvage treatments with chemotherapy and surgery. An ill-advised partial cystectomy not only may be insufficient to control the local disease, but also can lead to an unsolvable situation. I see more patients with problems associated with an ill-advised partial cystectomy than I see patients who are good candidates for partial cystectomy.

James E. Montie, M.D.

Hydronephrosis is an Independent Predictor of Poor Clinical Outcome in Patients Treated for Muscle-Invasive Transitional Cell Carcinoma With Radical Cystectomy


Department of Surgery, Division of Urology, Hospital of University of Pennsylvania, Philadelphia, Pennsylvania


Objectives: The purpose of this study was to assess the prognostic significance of hydronephrosis on pathologic and clinical outcomes in muscle-invasive bladder cancer. Methods: We performed a retrospective evaluation of a prospectively maintained cystectomy database and identified patients with hydronephrosis on preoperative imaging. Of a total of 306 patients, 57 (19%) had unilateral hydronephrosis and 17 (6%) had bilateral hydronephrosis. We constructed multivariate Cox regression analysis and Kaplan Meier tables to evaluate the association between preoperative hydronephrosis and clinical outcomes. Results: In patients without hydronephrosis, 41.4% had extravesical disease compared with 56.1% and 64.7% in patients with unilateral or bilateral hydronephrosis, respectively. Mean overall survival (OS) among patients without hydronephrosis, with unilateral hydronephrosis, and with bilateral hydronephrosis was 55.5, 42.1, and 22.2 months, respectively. Five-year OS and disease-specific survival (DSS) was 46%, 35%, and 22% (P = .001) and 68%, 54%, and 35% (P = .002), respectively. Multivariate analysis demonstrated that both unilateral and bilateral hydronephrosis are significant independent risk factors for DSS and OS. Bilateral hydronephrosis was found to have a hazard ratio of 3.87 (95% confidence interval [CI] = 1.71–8.78, P = .001) and 2.75 (95% CI = 1.45–5.18, P = .002) for DSS and OS, respectively. The hazard ratios for unilateral hydronephrosis were 1.7 (95% CI = 1.05–2.87, P = .03) and 1.5 (95% CI = 1.03–2.23, P = .04) for DSS and OS, respectively. Conclusions: Preoperative hydronephrosis is associated with a significantly poorer prognosis in patients with muscle-invasive bladder cancer. These patients should be appropriately counseled with regard to overall prognosis and the potential benefit of neoadjuvant chemotherapy.

Editorial Comment: The importance of hydronephrosis associated with a muscle invading cancer cannot be overemphasized. Under staging of the local disease and the high risk for positive nodes imply that neoadjuvant therapy should be strongly considered unless contraindicated.

James E. Montie, M.D.