

UROTHELIAL CARCINOMA

Survival not improved by adjuvant chemotherapy

Adjuvant chemotherapy after radical nephroureterectomy offers little benefit to patients with high-risk upper tract urothelial carcinoma, Hellenthal and colleagues report. Prognosis in this patient group is instead determined by age, preoperative performance status, and tumor grade and stage.

Upper urinary tract urothelial carcinoma represents only 5% of all urothelial cancers, of which high-risk cases (pathological stage T3 and higher) are most rare. Approximate 5-year survival rates are 50% for patients with T3 lesions, and drop to 5% for T4 lesions and 1% for node-positive disease. Owing to the rarity of high-risk cases, few data exist on the effects of adjuvant chemotherapy after radical nephroureterectomy in this subgroup. Hellenthal *et al.* sought to examine the incidence of adjuvant chemotherapy treatment in patients with high-risk upper tract urothelial carcinoma and to assess the overall and cancer-specific survival associated with this management approach.

The researchers analyzed data from an international collaborative database, identifying 1,390 patients who underwent

nephroureterectomy for nonmetastatic upper tract urothelial carcinoma between 1992 and 2006. A total of 542 patients (mean age 69 years) had a pathological stage of T3 or T4 and/or node positivity, of whom 121 received adjuvant chemotherapy.

Of the patients with high-risk disease, 219 died of upper tract urothelial carcinoma and 58 died of other causes. Median survival in the patients who received adjuvant chemotherapy was 24 months, compared with 26 months for those who did not receive chemotherapy. Patients receiving adjuvant chemotherapy generally had higher tumor grade and stage, which the investigators suggest could explain the outcomes observed.

Sex, in addition to adjuvant chemotherapy, was found to have little effect on cancer-specific or overall survival. Hellenthal's team did, however, identify age, performance status, and tumor grade and stage as pivotal predictors of overall and cancer-specific survival.

The researchers note that neoadjuvant chemotherapy can improve survival in patients with invasive urothelial bladder carcinoma, and such treatment



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may warrant further study in patients with high-risk upper tract urothelial carcinoma. Thus, Hellenthal *et al.* recommend prospective studies to evaluate the roles of both adjuvant and neoadjuvant chemotherapy in the treatment of these patients.

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Original article Hellenthal, N. J. *et al.* Adjuvant chemotherapy for high-risk upper tract urothelial carcinoma: results from the Upper Tract Urothelial Carcinoma Collaboration. *J. Urol.* doi:10.1016/j.juro.2009.05.011