Mining the data on UTUC management

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This study by the Canadian Upper Tract Collaboration (CUTC) lays bare the lack of consensus as to the best practices of surgical management of upper tract urothelial carcinoma (UTUC).[1]

The stratification of cases by region here likely does not group patients along any meaningful spectra apart from longitude; each contributing site is a tertiary referral centre, and the regional "groups" each contain variably-sized population centres with dissimilar regional geographies that would tend to erase any disparity of socioeconomic status, ethnicity, provincial health-system constraints (save the Central group of Ontario alone) or carcinogen exposures. Indeed, apparent differences in overall and disease-specific survival between regions are washed out in the multivariable analysis. Age over 65, high pathologic stage and high grade were independent predictors of overall survival.

Very little prospective data of any type exist in the UTUC literature. The CUTC, as well as the similarly monikered multicentered Upper Tract Urothelial Carcinoma Collaboration (UTUCC) and other groups using population-level data, have recently provided significant retrospective insights into the outcomes of nephroureterectomy (NU) that meaningfully add to the evidence base behind the existing guidelines referenced in the paper.[2-7]

In the current study, the differences in surgical technique did not translate to changes in survival endpoints on multivariate analysis, which therefore does not endorse any specific surgical practice. Prior publications, including by the CUTC, have failed to show a survival difference between laparoscopic and open NU.[2] Canadians are clearly ahead of the curve in the adoption of laparoscopy for UTUC: 53% of NU were performed this way in the current study, compared to 28% in a large prior study.[8]

Management of the distal ureter is similarly up for some debate. Standard practice involves the excision of a cuff of normal bladder, achieved by open or endoscopic means. Oncologic outcomes were not affected by the choice in this study, in keeping with recent published data.[9] Disturbingly, Ontario population-level data suggest that up to 26% of patients undergoing NU may have incomplete distal ureteral management, based on measurements of ureteral lengths in pathology specimens.[7]

The question of lymphadenectomy is a challenging one in this setting for multiple reasons. Lymph node involvement has a negative effect on survival in UTUC, although no differences were found between those with node-negative status and those in whom lymphadenectomy was not performed.[3] Routine performance and extent of lymph node dissection is clearly associated with survival gains in the bladder cancer literature.[10] The large majority of radical cystectomies, however, are performed with a known diagnosis of muscle invasion (stage ≥pT2), whereas 50.3% of NU specimens in the current study were for pT1 disease, and clinical staging remains a significant preoperative challenge. Previous studies have found from 0-6% node-positivity in T1 disease, compared with 24% to 35% for T3 disease. Identifying a significant survival difference in favour of routine lymphadenectomy at the time of NU for all patients would likely require a significant accrual to prospective assessment. The appropriate templates for regional lymphadenectomy to ensure optimal outcomes are not known, though they have been proposed.[11] Adoption of such templates would mandate a much more significant surgical procedure, likely out of the surgical comfort level of many who currently perform NU, particularly laparoscopically.

As always after such a report, the weary chorus imploring prospective studies grows that much louder. Let's not hold our breath, and instead congratulate UTUC collaborations, such as CUTC and UTUCC, for their efforts in uncovering realities and opportunities in this challenging oncologic space.

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This paper has been peer-reviewed.

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