Title

The Impact of Histological Reclassification during Pathology Re-Review-Evidence of a Will Rogers Effect in Bladder Cancer? EDITORIAL COMMENT

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EDITORIAL COMMENT

The Will Rogers effect refers to the alteration in statistical effects caused by reclassification of a group. These authors report the reclassification of patients determined 11 years previously to have pure UC, which on recent reexamination was not true. This is not the first time that investigators have studied the Will Rogers effect in bladder cancer but the authors used a much larger number of patients than has been used before. In addition, the focus is on altered histopathological reclassification and not on stage reassignment and node analysis, as in previous studies (reference 16 in article).

Of the 1,211 UC cases reexamined a third were reclassified as a variant and the rest were correctly classified. The 11-year lapse since the original diagnosis allowed the authors to relate the original diagnosis to OS and CSS. Therefore, they compared survival in the original cohort vs reclassified cases vs cases that were not reclassified. They concluded that the prognosis was slightly better in the pure UC group than in the overall cohort and reclassified cases had an overall worse prognosis. The overall conclusion is that the variant histology decreased survival.

This is not the first time that this group has studied bladder tumor reclassification. In previous reports the authors noted that various subtypes of bladder cancer severely affected outcome statistics. Squamous differentiation and glandular differentiation were associated with adverse survival compared to pure UC (reference 4 in article). Similarly, patients with a nested variant had an increased rate of recurrence or adverse survival (reference 5 in article), while those with micropapillary bladder tumors had increased local/distant recurrence or adverse CSS after RC (reference 6 in article). Significantly, the differences were obvious on univariate analysis, while on multivariate analysis there was no significant difference between the groups. The causes of differences among various analyses are not always obvious. However, the study conveys a sense that knowing what the future portends would greatly benefit patients with UC.

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REPLY BY AUTHORS

We evaluated the results of pathological re-review of RC specimens to identify histological variants of UC. Histological variants were identified at re-review in approximately a third of cases. This finding reflects the evolution that has occurred in the understanding of the capacity for UC to differentiate since a number of new histological subtypes have been described in recent years. As mentioned, we also noted that the histology assigned at re-review significantly stratified patient outcomes after RC on univariate analysis. Patients with pure UC on re-review had the most favorable survival, those with UC on initial interpretation had intermediate survival and those identified with a variant subtype on re-review experienced the most adverse survival. These data are consistent with our previous publications and likely due to the association of variant subtypes with high rates of locally advanced disease. Nevertheless, the central message of our series should remain the demonstrated importance of contemporary pathological review of bladder cancer tissue to record histology, given the changes that have occurred in this field with time. Correspondingly, knowledge and documentation of the presence/absence of pathological re-review status is important when evaluating the reported outcomes of what are often historical institutional and/or population based data sets.