



Editorial Comment: A modified clinicopathological tumor staging system for survival prediction of patients with penile cancer

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COMMENT

In this interesting paper, Drs. Zai-Shang Li, Antonio Augusto Ornellas and colleagues, test the prognostic validity of the The 8th American Joint Committee on Cancer tumor-node-metastasis (AJCC-TNM) staging system and to determine whether a modified clinicopathological tumor staging system that includes lymphovascular embolization could increase the accuracy of prognostic prediction for patients with stage T2–3 penile cancer.

The presence of lymphovascular embolization, perineural invasion, and the degree of differentiation are all considered prognostic indicators of survival for penile cancer patients (1, 2)

They analyzed 411 patients who were treated at 2 centers (China and Brazil) between 2000 and 2015. They were staged according to the 8th AJCC-TNM staging system. The internal validation was analyzed by bootstrap-corrected C-indexes and to external validation, where used the data from 436 patients treated at 15 centers over four continents.

The authors found a survivorship overlap was observed between T2 and T3 patients classi-

fied according to the 8th AJCC-TNM staging system. The T2 and T3 patients with lymphovascular embolization showed significantly shorter CSS than did those without lymphovascular embolization ($P < 0.001$).

The authors proposed a modifications to the 8th AJCC-TNM staging system with the T2 and T3 categories should be subdivided into two new categories as follows: t2 tumors invade the corpus spongiosum and/or corpora cavernosa and/or urethra without lymphovascular invasion, and t3 tumors invade the corpus spongiosum and/or corpora cavernosa and/or urethra with lymphovascular invasion.

With this modifications they suggest that the new staging system which the involving lymphovascular embolization showed improved prognostic stratification with significant differences in CSS among all categories (all $P < 0.005$) and exhibited higher accuracy in predicting patient prognoses than did the 8th AJCC-TNM staging system (C-index, 0.739 vs. 0.696). And they show that these results were confirmed in the external validation cohort.

Further studies with other patient cohorts should be performed to validate these findings.

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