

AB115. P089. Comparison of prognostic prediction between nomogram based on lymph node ratio and AJCC 8th staging system for patients with resected pancreatic head carcinoma: a SEER analysis

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Background: The prognosis of pancreatic carcinoma (PC) remains poor and the AJCC 8th staging system for survival prediction in PC patients after curative resection is still limited. Thus, we aim to refine a valuable prognostic model and novel staging system for PC with curative resection.

Methods: The data of 3,458 patients used in this study were retrieved from the Surveillance, Epidemiology, and End Results (SEER) database registry of National Cancer Institute. The prognostic value of lymph node ratio (LNR) was analyzed in the primary cohort and prognostic nomogram based LNR was established to create a novel staging system. Then, analyses were conducted to evaluate the application of the formulated nomogram staging system and AJCC 8th staging system. The predictive performance

of model was further validated in the internal validation cohort.

Results: Significant positive correlations were found between LNR and all factors except for surgical procedures. The results of univariate and multivariate analysis showed, LNR was identified as an independent prognostic indicator for OS in both primary and validation cohorts (all $P < 0.001$). A prognostic nomogram based on LNR was formulated to obtain superior discriminatory abilities. Compared with the AJCC 8th staging system, the formulated nomogram staying system showed higher HRs of stage II, III and IV disease (reference to stage I disease) that was 1.637, 2.300 and 3.521 respectively by univariate analyses in the primary cohort and the distinction between stage I, II and III disease at the beginning or end of the survival curves was more apparent. All these results were further verified in the validation cohort.

Conclusions: LNR can be considered as a useful independent prognostic indicator for PC patients following curative resection regardless of the surgical procedures. Compared with the AJCC 8th staging system, the formulated nomogram showed superior predictive accuracy for OS and its novel staging system revealed better risk stratification.

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