



Comment on “Development and validation of a nomogram to predict overall survival of T1 esophageal squamous cell carcinoma patients with lymph node metastasis”

Dear editor

We read with great interest the report by Li and colleagues on the investigation of the prognostic factors for T1 esophageal squamous cell carcinoma (ESCC) patients with positive lymph node [1]. This study developed a prediction model, which was demonstrated to aid patient counseling and recommendations.

Discrimination and calibration are the two key factors to validate the performance of a prediction model [2]. In this study, calibration curve test was used for measuring calibration; discrimination was explored via AUC of ROC and C-index. Thus, this study has utilized convincing statistics to qualify the predictive ability of this prediction model. However, some points of the study warrant discussion.

Given the statistically significant performance, the author conclude that the established prognostic models can help clinical staff to predict overall survival more accurately, personally, and comprehensively in T1 ESCC patients with positive lymph node as compared with that of the 7th AJCC staging system. However, its performance appears insufficient for clinical implementation because of the moderate prognostic value of the nomogram model (areas under the ROC curve: 0.71–0.81). In practical terms, such accuracy means that about 19–29% of the cases predicted by this model would be wrong. To improve its accuracy, other clinico-pathological parameters that were repeatedly advocated to have additional prognostic value in T1 ESCC patients should be included, such as lymphovascular invasion (LVI), tumor size and surgical resection margins [3].

In addition, there is obvious bias owing to unrepresentative cancer stage distribution. In Li's study, the proportion of IV stage is 34%, meaning that one of three patients has distant diseases. Besides, this relative higher percentage of cases with distant metastasis may partially explain the confused results that T1a patients exhibited worse outcomes than T1b patients. Previous study has investigated the relationship between T stage and survival in distantly metastatic ESCC [4]. Its results demonstrated that tumors with distant metastasis in the early T stage

reflect a more biologically aggressive disease compared with those that metastasize in more advanced T stages. In other word, the aggressiveness of distantly metastatic ESCC (M1 stage) is negative related with T stage.

In short, the author had proposed a prediction model to facilitate individualized prediction for T1 esophageal squamous cell carcinoma patients with lymph node metastasis. Given the above-mentioned potential limitation, the clinical usefulness of this prediction model needs further investigation.

Declaration of Competing Interest

Author declare that I have no conflict of interest.

References

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