

Extended Abstract

Development of a Prognostic Model for Tongue Squamous Cell Carcinoma [†]

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One of the objectives of current researches is to be able to customize the treatment of cancer patients. This can be possible only by better stratifying patients based on the most significant prognostic factors [1]. The current staging system for oral cancer based on the 8th edition of American Joint Committee on Cancer (AJCC) [2,3] takes into consideration also depth of invasion and extra-nodal extension (ENE) for patients' stratification [4]. The aim of the present study was to retrospectively evaluate the prognostic value of tumor-stroma ratio in patients with Tongue Squamous Cell Carcinoma (TSCC) and to develop a prognostic model based on the most significant clinical-pathological features. Clinical and pathological data of 211 patients treated for TSCC were collected. 139 patients were re-staged according to the 8th edition of AJCC. Evaluation of TSR was performed on H&E slides and correlation with survival outcomes was evaluated. In particular, disease-specific survival (DSS) and disease-free survival (DFS) were analyzed. A prognostic nomogram, based on significantly predictive variables included into a Cox Proportional Hazard model was developed. Low TSR showed to have a negative prognostic value in terms of Disease Specific Survival (DSS) and Overall Survival (OS) for both the 7th and 8th edition classifications. Stage, perineural invasion and Gender significantly correlated to the prognosis of TSCC patients primarily treated by means of surgery. The model built on such parameters showed a good predictive capacity, overperforming the AJCC 8 staging system in stratifying survival in TSCC. The model developed using Gender, TSR and Perineural Invasion and 8th edition of the AJCC staging system could improve TSCC patients' stratification and treatment decisions and represents another step toward the long road for personalized treatment in TSCC patients.

Conflicts of Interest: The authors declare no conflict of interest.

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