Tumor programmed cell death ligand 1 expression correlates with nodal metastasis in patients with cutaneous squamous cell carcinoma of the head and neck

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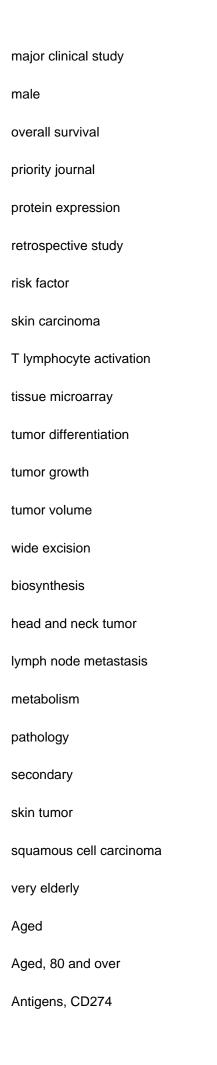
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Background Binding of tumor-expressed programmed cell death ligand 1 (PD-L1) to the programmed cell death 1 (PD-1) surface receptor blocks T-cell activation thereby leading to immune evasion. Tumor PD-L1 expression has been associated with poor outcome in a wide variety of cancers; however, data in cutaneous squamous cell carcinoma (cSCC) are scarce and conflicting. Objective To investigate the relationship of tumor PD-L1 expression with the clinicopathologic features and prognosis of cSCC. Methods PD-L1 expression was analyzed by immunohistochemistry on paraffin-embedded tissue samples from 100 patients with cSCC. Cumulative/dynamic receiver operating characteristic curve was used to determine the optimal PD-L1 threshold. Kaplan-Meier estimators and Cox proportional hazards regression models were also used. Results On the basis of cumulative/dynamic receiver operating characteristic curves, we defined the cut-off score for PD-L1 expression as ?25% of tumor cells positively stained. PD-L1 expression was a significant risk factor for nodal metastasis with crude and adjusted hazard ratios of 3.39 (1.71-6.65) and 6.54 (2.28-18.78), respectively. Limitations This is a retrospective study limited to cSCC of the head and neck. Conclusion These findings indicate that tumor PD-L1 expression predicts increased risk for nodal metastasis in patients with cSCC. © 2017 American Academy of

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