High PD-L1 expression correlates with metastasis and poor prognosis in oral squamous cell carcinoma

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PD-L1 has been widely demonstrated to contribute to failed antitumor immunity. Blockade of PD-L1 with monoclonal antibody could modulate the tumor immune environment to augment immunotherapy. PD-L1 expression is also detected in several types of cancer and is associated with poor prognosis. However, the prognostic role of PD-L1 in oral squamous cell carcinoma (OSCC) is still controversial. Our aim was to determine the role of PD-L1 in the prognosis of OSCC patients to identify its potential therapeutic relevance. PD-L1 immunoreactivity was analyzed by immunohistochemistry in 305 cancer specimens from primary OSCC patients. The medium follow-up time after surgery was 3.8 years (range from 0.1 to 11.1 years). The prognostic value of PD-L1 on overall survival was determined by Kaplan-Meier analysis and Cox proportional hazard models. Higher PD-L1 expression is more likely in tumor tissues of female than male OSCC patients (P=0.0062). Patients with distant metastasis also had high PD-L1 expression (P=0.0103). Multivariate analysis identified high PD-L1 expression as an independent risk factor in males and smokers (males: hazard ratio =1.556, P=0.0077; smokers: hazard ratio =2.058, P=0.0004). We suggest that PD-L1 expression, determined by IHC staining, could be an independent prognostic marker for OSCC patients who are male or who have a smoking habit.

Biography:

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