ERP29, a expressão de JUN foi maior em FaDu em comparação com as outras linhagens celulares (FC: 4,5, p= 0,03 e FC: 3,0, p= 0,03). A expressão de MDM2 foi menor em FaDu do que nas demais linhagens celulares (FC: 0,3, p= 0,002 e FC: 0,2, p = 0,01). No entanto, nas células com ERP29 silenciado, a expressão de MDM2 foi maior em FaDu do que em FaDu-CDDP (FC: 2,0, p = 0,02). **Conclusão:** Nossos resultados sugerem que o gene ERP29 modula a expressão de genes-chave da via PI3K/AKT, influenciando potencialmente o comportamento das células tumorais no carcinoma de faringe. Estudos adicionais, incluindo experimentos com diferentes linhagens celulares e modelos in vivo, são necessários para confirmar esses achados.

Palavras-chave: Câncer de cabeça e pescoço, ERP29, PI3K/AKT.

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PDCD1 VARIANTS ARE INDEPENDENT PROGNOSTIC FACTORS IN PATIENTS WITH HEAD AND NECK SQUAMOUS CELL CARCINOMA

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A B S T R A C T

Introduction/Justification: Laryngeal squamous cell carcinoma (LSCC) is a common malignancy in the upper aerodigestive tract, strongly associated with smoking and alcohol consumption. It is already well known that tumors development and progression depend on immune evasion. PD-1/PD-L1 pathway is a primary mechanisms of immune evasion. The PDCD1 gene encodes PD-1 and is a polymorphic gene. **Objectives:** His study aims to evaluate the influences of the PD1.1 (c. -606G>A), PD1 (c.627+252C>T), PD1.5 (c.804C>T) and PD1.9 (c.644C>T) single variants (SNVs) in PDCD1 gene influence the risk, clinicopathological aspects and survival of LSCC patients. **Materials and Methods:** This is a retrospective observational study including 284 patients with LSCC and 296 healthy controls (blood donors) seen at the General Hospital of University of Campinas. Clinical and pathological data were collected from the medical records by the main researcher. Genotypes of PDCD1 variants were identified using real-time PCR with TaqMan® probes. Statistical analyses included chi-square tests and logistic regression for LSCC risk assessment. Bonferroni analysis was used in comparison of multiple variables. Kaplan-Meier curves, log-rank test and univariate and multiple Cox regression were used to evaluate the impact of clinicopathological aspects and genotypes of SNVs on overall survival (OS) and event-free survival (EFS). **Results:** Similar frequencies of isolated and combined SNV genotypes were seen patients and controls. The frequencies of combined genotypes of SNVs, GA or AA + CT or TT of PD1.1 + PD1.5 and CT or TT + CT or TT of PD1.5 and PD1.9, were more common in patients with glottic tumor than in patients with tumors in other locations. The CC genotype of PD1 SNV and the CC + CC combined genotype of PD1.5+PD1 SNVs were more common in patients with tumors at stage III or IV than in patients with tumors at stage I or II. In multivariate Cox analysis, patients with BMI≤ 24.9 kg/m^2, ECOG ≥ 1, tumors at stage III/IV, and not submitted to surgical tumor resection had 1.81 (95%CI: 1,25-2,62%), 1.60 (95%CI: 1,14-2,24), 1.93 (1,24-3,00), and 1.80 (1,20-2,71) more chances of evolving to death than the remaining patients. In addition, patients with TT genotype of PD1.5 SNV and TT + CC combined genotype of PD1.5 and PD1 SNVs had a 1.59 (95% CI: 1.06-2.41) and a 2.97 (95% CI:1.43-6.18) more chances of evolving to death than others. **Conclusion:** Our data indicates: 1) The analyzed SNVs in the PDCD1 gene do not influence LSCC risk, 2) PD1, PD1.5, and PD1.9 affect LSCC location, 3) PD1 and PD1.5 influence LSCC aggressiveness, 4) BMI, ECOG, tumor stage, lack of surgical tumor resection, PD1 and PD1.5 SNVs are independent prognostic factors for OS of LSCC patients. These findings reinforce the importance of studying inherited biomarkers in oncology, which may contribute to risk stratification and personalized therapeutic approaches. **Acknowledgements:** The study was supported by Coordenação de Aperfeiçoamento de Pessoal de Nível Superior (CAPES), Fundação de Apoio ao Ensino e à Pesquisa do Estado de São Paulo (FAPESP #2019/09168-8; #2023/09738-4, and Cancer Theranostics Innovation Center, CancerThera, CEPID FAPESP #2021/10265-8).

Keywords: Genetic polymorphisms, Laryngeal squamous cell carcinoma, PDCD1, Prognosis, Survival.

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PLATINUM-BASED CHEMORADIOTHERAPY AS DEFINITIVE TREATMENT IN ADVANCED SQUAMOUS CELL CARCINOMA OF HEAD AND NECK IN REAL-WORLD SETTING

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A B S T R A C T

Introduction/Justification: Head and neck squamous cell carcinoma (HNSCC) is one of the most prevalent malignant tumor globally, and over 60% of patients present