

عنوان مقاله:

GLUT \backslash Expression in Oral Squamous Cell Carcinoma and Its Significance

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خلاصه مقاله:

Background: GLUT \backslash , a glucose transport protein, exhibits heightened expression in malignant cells, leading to increased glucose absorption. The detection of GLUT \backslash through immunohistochemical methods in these cancerous cells suggests elevated rates of cell proliferation, heightened energy requirements, and a more aggressive nature. The influence of GLUT \backslash on prognosis and its utility as a biomarker may manifest as tumour hypoxia and adaptive upregulation of anaerobic glycolysis, promoting tumour cell survival. Thus, GLUT \backslash may be considered a negative prognostic biomarker in patients with squamous cell carcinoma. We aimed to evaluate the expression of GLUT \backslash in typical and oral squamous cell carcinoma (OSCC) cases at different clinical stages and histopathological grades to ascertain its role as a prognostic marker. Method: A case-control study was conducted with a sample size of $n = 25$, comprising 20 biopsy specimens from OSCC patients and 5 from regular patients. Demographic patient details were recorded. Microscopically confirmed OSCC cases were selected, and immunohistochemical staining was performed using a GLUT \backslash antibody. Results: Significant expression and increased staining intensity and percentage of GLUT \backslash were observed in OSCC cases across different histological grades of OSCC. No significant expression was found in typical cases. Conclusion: This study concludes that GLUT \backslash expression can be a biomarker for the early stages of OSCC. Elevated expression of this marker signifies the heightened energy demand of cancer cells for increased proliferation and division under hypoxic conditions. Further studies with larger sample sizes are essential to validate the clinical potential of GLUT \backslash as a prognostic marker for assessing the risk and prognosis of OSCC.

کلمات کلیدی:

GLUT \backslash , Immunohistochemistry, Squamous Cell Carcinoma of Head and Neck, Prognosis

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