

## Assessment the role of complement factor I in oral squamous cell carcinoma

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### Abstract

**Background and Aim:** According to the research on cutaneous squamous cell carcinoma, complement factor I may play a role in progression of oral squamous cell carcinoma. The aim of present study was to evaluate immunohistochemical expression of complement factor I in oral squamous cell carcinoma.

**Materials and Methods:** In this case-control study, studied groups were consisted of paraffin-embedded tissue blocks of 30 oral squamous cell carcinoma samples and 30 normal oral mucosa samples. 4  $\mu$  sections were prepared from tissue blocks and stained with complement factor I antibody using immunohistochemistry technique. In this study, percentage of stained cells and staining intensity of them was considered and data analyzed by MANN-U-WHITNEY test. Significance level was P-value < 0.05.

**Result:** 25 cases of normal mucosal samples and 5 cases of oral squamous cell carcinoma samples didn't stain with this antibody. Mean percentage of stained cells in normal mucosa was 0.015 and in oral squamous cell carcinoma was 0.060 (P<0.01). There was statistically significant difference between normal oral mucosa and oral squamous cell carcinoma with regard to mean percentage of stained cells (P=0.00). Semi-quantitative classification of percentage of stained cells also showed statistically significant difference between normal oral mucosa and oral squamous cell carcinoma (P=0.00). Also, with regard to staining intensity, statistically significant difference was observed between normal oral mucosa and oral squamous cell carcinoma (P=0.00).

**Conclusion:** It seems that complement factor I play a role in development of oral squamous cell carcinoma

**Keywords:** squamous cell carcinoma; oral mucosa; complement factor I