

## Abstract

: “CLAUDINS EXPRESSION IN ORAL SQUAMOUS CELL CARCINOMA”

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**Background:** Claudins are the important tight junction’s protein in human. The downregulation or upregulation of claudins might have a role in cancer development. The objective of this study was to investigate the expression of claudin-5 and claudin-7 in oral squamous cell carcinoma (OSCC) and their relationships with the prognostically-related clinico-pathologic features.

**Material and Methods:** Standard indirect immunohistochemical technique using anti-claudin-5 and anti-claudin-7 was performed in formalin-fixed paraffin-embedded tissue sections of 45 OSCC samples from Faculty of Dentistry, Chulalongkorn University. The positive cases were divided into 2 groups, the low expression group (cases with less than 50% of positive cancer cells) and the high expression group for statistical analysis. Categorical analysis of the clinico-pathologic parameters together with univariate analysis using the Kaplan-Meier method and the log rank test were performed.

**Results:** There were 22 male and 23 female patients enrolled in this study, with a mean age of 65.82±12.10 years. The claudin-5 immunoreactivity was observed in 26.6% of cases. The positive immunoreactivity of claudin-7 is more noted (93.3%). Only loss of claudin-7 expression was associated with the high pathologic grade, advanced TNM staging, large tumor size, and the presence of microscopic

perineural, vascular invasions and regional lymph node involvement. There is a tendency towards the association of the higher claudin-7 expression and a longer survival time ( $P=0.012$ ).

**Conclusions:** The results showed expression of claudin-5 and claudin-7 in OSCC. Only claudin-7 expression showed impact on clinic-pathological parameter of OSCC.