

Perbedaan ekspresi catenin pada karsinoma sel skuamosa oral derajat rendah dan tinggi berdasarkan sistem grading bryne = The relation of catenin immunoexpression between low grade and high grade of oral squamous cell carcinoma based on bryne grading system / Welly Hartono Ruslim

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Abstrak

**ABSTRAK**

-catenin merupakan protein yang memiliki peran penting dalam adhesi antar sel dan transduksi sinyal. Pada keadaan tanpa stimulasi -catenin hanya tampak pada membran sel, namun bila terdapat stimulasi maka -catenin akan tampak pada sitoplasma dan inti. Perubahan ekspresi -catenin diketahui berhubungan dengan progresivitas dan metastasis pada berbagai penyakit keganasan manusia. Tujuan penelitian ini adalah mengevaluasi ekspresi -catenin di daerah peritumor pada karsinoma sel skuamosa oral (KSSO) derajat rendah dan tinggi berdasarkan sistem grading Bryne.

Bahan dan Metode: Penelitian dilakukan pada 20 kasus KSSO derajat rendah dan 20 kasus derajat tinggi. Pewarnaan imunohistokimia -catenin digunakan untuk menilai perbedaan yang tampak pada membran, sitoplasma, dan inti sel tumor pada area peritumor.

Hasil: Ekspresi -catenin pada membran, sitoplasma, maupun inti sel tumor memiliki perbedaan yang bermakna antara KSSO derajat rendah dan derajat tinggi ( $p=0,000$ ;  $p=0,005$ ; dan  $p=0,035$ ). Tidak ditemukan hubungan yang bermakna antara ekspresi -catenin dengan variabel umur, jenis kelamin, maupun lokasi tumor.

Kesimpulan: Terdapat perbedaan ekspresi -catenin di daerah peritumor antara KSSO derajat rendah dan derajat tinggi. Hal ini menunjukkan bahwa ekspresi -catenin yang salah menyebabkan perubahan morfologi sel-sel KSSO ke arah yang lebih ganas dan prognosis yang lebih buruk.

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**ABSTRACT**

-catenin is an important protein in cellular adhesion and signal transduction. In unstimulated condition, -catenin only appears on the cellular membrane. Altered expression of -catenin has been associated with progressiveness and metastatic process of malignancy in human. The aim of this study was to evaluate the expression of -catenin on oral squamous cell carcinoma (OSCC) and also to assess its different expression in low grade and high grade lesions based on Bryne grading system.

Materials and methods: This study was conducted on 2 groups of OSCC which included 20 cases of low grade and 20 cases of high grade. Immunohistochemistry

staining of -catenin was used to identify the difference of its expression in cell membrane, cytoplasm, and nuclei on invasive tumor front.

Results: The expression of -catenin on cell membrane, cytoplasm, and nuclei showed significant difference between low and high grade OSCC ( $p=0.000$ ;  $p=0.005$ ; and  $p=0.035$ , respectively). There has not been any significant association between -catenin expression with age, sex, and tumor location.

Conclusion: Oral squamous cell carcinoma, both low and high grade, showed significant differences in -catenin expression in cell membrane, cytoplasm, and nuclei. Thus, it showed that the altered expression of -catenin could change the OSCC to become more aggressive and have a poorer prognosis.