

ANALYSIS OF Cdk6 AND Ki-67 EXPRESSION ON SALIVARY GLAND NEOPLASMS

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ABSTRACT

Background: Tumors with broad spectrum can arise in salivary glands and giving diagnostic difficulties in some subtypes due to morphologic similarities. Immunohistochemistry studies done to differentiate between benign and malignant neoplasms of salivary glands are very few, including Cdk6 and Ki-67. Cdk6 role in tumorigenesis, halting cellular proliferation and differentiation. Ki-67 is actively expressed in cells that are proliferating, particularly neoplasms.

Objective: To analyze differences of Cdk6 and Ki-67 expression in benign and malignant salivary gland neoplasms, as well as analyzing the correlation between the Cdk6 and Ki-67 expression in the salivary gland neoplasms.

Methods: This is an analytic observational study with cross sectional design. Samples were taken in proportion, each 15 samples of benign and malignant salivary gland neoplasms, derived from pathological archives during period of 1 January 2011-30 June 2013. Immunohistochemical staining with Cdk6 and ki-67 monoclonal antibody were performed. Differences in Cdk6 and Ki-67 expression of both group were analyzed using Mann Whitney. The correlation between the Ki-67 and Cdk6 expression were analyzed using Spearman.

Results: There were significant differences in the Cdk6 and Ki-67 expression between benign and malignant salivary gland neoplasms. The expressions of Ki-67 have a cut-off point of 6.50%. There was a significant correlation between Cdk6 and Ki-67 expression in the salivary gland neoplasms.

Conclusion: Cdk6 and Ki-67 can be used to distinguish between benign and malignant neoplasms of the salivary glands. There were correlation between Cdk6 and Ki-67 expression in the salivary gland neoplasms.

Keywords: Neoplasms of the salivary glands, Cdk6, Ki-67

ANALISIS EKSPRESI Cdk6 DAN Ki-67 PADA NEOPLASMA KELENJAR LIUR

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ABSTRAK

Latar Belakang: Neoplasma dengan berbagai spektrum dapat muncul dari kelenjar liur dan memberikan gambaran morfologi yang hampir sama pada masing-masing subtipe sehingga menimbulkan kesulitan dalam penegakkan diagnosis. Penelitian dengan imunohistokimia yang pernah dilakukan untuk membedakan neoplasma jinak dan ganas pada kelenjar liur tidak banyak, termasuk Cdk6 dan Ki-67. Peran Cdk6 dalam tumorigenesis, memutus proliferasi seluler dan diferensiasi. Ki-67 tereksresi secara aktif dalam sel yang sedang berproliferasi, terutama neoplasma.

Tujuan: Menganalisis perbedaan ekspresi Cdk6 dan Ki-67 pada neoplasma kelenjar liur yang jinak dan ganas, serta menganalisis korelasi antara ekspresi Cdk6 dan Ki-67 pada neoplasma kelenjar liur.

Metode: Jenis penelitian ini adalah observasional analitik menggunakan rancangan *cross sectional*. Sampel penelitian diambil secara proporsional masing-masing kelompok, jinak dan ganas, sejumlah 15 sampel selama periode 1 Januari 2011-30 Juni 2013. Sampel diberikan pulasan imunohistokimia dengan antibodi monoklonal Cdk6 dan Ki-67. Perbedaan ekspresi Cdk6 dan Ki-67 pada neoplasma jinak dan ganas dianalisis menggunakan uji *Mann Whitney*. Hubungan antara ekspresi Cdk6 dan Ki-67 dianalisis menggunakan uji *Spearman*.

Hasil: Ekspresi Cdk6 memiliki perbedaan bermakna antara neoplasma kelenjar liur jinak dan ganas. Ekspresi Ki-67 memiliki bermakna pada neoplasma kelenjar liur yg jinak dan ganas serta memiliki nilai *cut off* 6,50%. Ekspresi Cdk6 dan Ki-67 memiliki hubungan yang bermakna pada neoplasma kelenjar liur.

Kesimpulan: Ekspresi Cdk6 dan Ki-67 dapat digunakan untuk membedakan neoplasma kelenjar liur jinak dan ganas. Cdk6 dan Ki-67 memiliki korelasi pada neoplasma kelenjar liur.

Kata kunci : Neoplasma kelenjar liur, Cdk6, Ki-67