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论著

口腔白斑发生相关的肿瘤标志性基因筛选研究

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摘要 背景与目的： 筛查与口腔白斑发生相关的阳性表达基因，为探究口腔白斑的发生机制奠定基础。 材料与方法： 采用肿瘤基因芯片(OHS-802)检测口腔正常黏膜组织和口腔白斑组织的肿瘤相关基因表达差异，进一步使用RT-PCR法对部分阳性基因进行验证，寻找与口腔白斑恶变发生、发展相关的基因。基因芯片实验采用化学发光检测试剂盒、X线胶片曝光，并用GEArray表达分析配套软件进行完整的芯片数据分析。RT-PCR电泳结果采用凝胶成像系统对部分基因的表达水平进行定量，然后将其与芯片分析的数据结果进行相似性分析。 结果： 口腔正常黏膜组织和白斑组织间CTNNB1、GDF15、FKBP8、NF1四个基因的RT-PCR结果，在表达水平上和SupperArray芯片检测方法获得结果的差别均具有统计学意义(P<0.05)。SupperArray芯片检测结果提示：口腔白斑发生的分子机制较为复杂，特别是与细胞周期调控相关基因和细胞增殖分化相关基因关系密切。结论：本研究为深入研究口腔白斑的发生机制和标志性基因探针的筛查奠定了研究基础。

关键词 口腔白斑；基因芯片；基因表达

Screening of Tumor Marker Genes Related to Oral Leukoplakia

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Abstract BACKGROUND AND AIM: To screen the marker genes related to oral leukoplakia,laying foundation for the research in the genetic mechanism of oral leukoplakia. MATERIALS AND METHODS: In order to identify marker gene candidates, differential gene expression between normal tissues and precancerous oral tissues were examined by Oligo Cancer Microarray(SuperArray,USA).We further validated several positively expressed genes by RT-PCR,searching for the related genes which participated in malignant transformation.Total RNAs were isolated from two tissues, Chemiluminescent Detection Kit (SuperArray Bioscience, catalog number D-01),X-ray film and GEArray Expression Analysis Suite(supplied on internet) were used to analyze the genechips. In order to quantitate the expression level of the chosen genes in RT-PCR,Kodak Gel image analysis system was used.Lastly,we made a correlation analysis on the results of these two technologies. RESULTS: RT-PCR showed that the expression Levels of CTNNB1,GDF15,FKBP8 and NF1 genes differed significantly between the precancerous tissues and the normal tissues(P<0.05).The genechip test confirmed these results(P<0.05):the genetic mechanisms of oral leukoplakia were very complicated,particularly associated with cell cycle regulation genes and cell growth and differentiation genes. CONCLUSION: This research formed the basis for further studies of the genetic mechanisms of oral leukoplakia and marker gene screening.

Keywords oral leukoplakia； genechip； gene expression

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