

—原著—

ヒト口腔扁平上皮癌細胞株における血管内皮細胞増殖因子と血管内細胞増殖因子受容体の相互作用；VEGF-A および VEGF-C 刺激による mRNA 発現レベルの動態

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Analysis of interaction effect between vascular endothelial growth factor and their receptors in human oral squamous cell carcinoma cell lines;

mRNA expression levels for VEGF-A and VEGF-C

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Abstract

Among in human oral squamous cell carcinoma (OSCC) cell lines HSC2, HSC-3, HSC-4, and OSC-19, HSC-2 and OSC-19 cell lines that were highly expressed VEGF-A mRNA showed high of VEGF-C mRNA expression. The purpose of the present study was to clarify that interaction of VEGF-A, VEGF-C, and VEGF receptors (VEGFR(VEGFR-1, VEGFR-2, and VEGFR-3)) in human OSCC cell lines.

We investigated the expression of VEGFR in human OSCC cell lines (HSC-2, HSC-3, HSC-4, and OSC-19) by reverse transcription polymerase chain reaction (RT-PCR). Furthermore, whether the expression levels of VEGF-A, VEGF-C, and VEGFR mRNA may be changed adding the human recombinant VEGF-A and VEGF-C, we examined the expression levels of VEGF-A, VEGF-C, and VEGFR mRNA by real-time RT-PCR in cultured human OSCC cell lines.

In each cell line expression of VEGFR-1 mRNA was detected, however, that of VEGFR-2 and VEGFR-3 mRNA were not detected. Expression levels of VEGF-A, VEGF-C, and VEGFR-1 mRNA when added to human recombinant VEGF-A and VEGF-C did not have statistically significant differences.

In OSCC cell lines, the expression levels of VEGF-A, VEGF-C, and VEGFR did not have any correlations in each other.

Further studies were required to clarify the correlation of VEGF-A, VEGF-C, and VEGFR in human OSCC.

Keywords: Oral squamous cell carcinoma, VEGF-A, VEGF-C, VEGF receptors.