唾液腺の腺様嚢胞癌における *MYB-NFIB* キメラ遺伝子の発現と血管新生，腫瘍増殖との関連についての研究

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Study of *MYB-NFIB* chimeric gene expression, tumor angiogenesis, and proliferation in adenoid cystic carcinoma of salivary gland

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Abstract Adenoid cystic carcinoma (ACC) is one of the common malignant tumors in salivary glands, and the clinical prognosis is poor with frequent distant metastasis which may lead to death. Expression of the *MYB-NFIB* chimeric gene in ACC has been reported recently. *MYB* is an oncogene with transcription regulating functions, and *NFIB* encodes nuclear transcription factor although detailed functions are unknown. This study investigated whether *MYB-NFIB* chimeric gene expression affects tumor angiogenesis and proliferation in salivary gland ACC. In 26 salivary gland ACC cases, *MYB-NFIB* chimeric gene expression was analyzed by RT-PCR and direct sequencing. Immunohistochemical studies for CD31, vascular endothelial growth factor (VEGF) and Ki-67 were performed. Tumor angiogenesis was evaluated by blood vessel (CD31-positive) density and tumor proliferation by Ki-67 labeling index, and the relationship with *MYB-NFIB* chimeric gene expression was analyzed. *MYB-NFIB* chimeric gene expression was detected in nine of 26 ACC cases. Blood vessel density was significantly higher in chimeric gene-expressing cases compared to non-expressing cases. VEGF score tended to be higher in chimeric gene-expressing cases than in non-expressing cases, while Ki-67 labeling index was not significantly different. The number of chimeric gene-expressing cases increased with age, peaking in the sixties age group and declining thereafter, while the number of non-expressing cases increased with age continuously. In ACC, blood vessel density was significantly higher in *MYB-NFIB* chimeric gene-expressing cases compared to non-expressing cases, which may be due to higher VEGF production capability. *MYB-NFIB* chimeric gene expression may also be related to the onset age of ACC.