



Title	Aberrant Expression of Disintegrin-metalloprotease Proteins in the Formation and Progression of the Uterine Cervical Cancer
Author(s)	Mohammed, Nouri Shaker
Citation	大阪大学, 2011, 博士論文
Version Type	
URL	https://hdl.handle.net/11094/58221
rights	
Note	著者からインターネット公開の許諾が得られていないため、論文の要旨のみを公開しています。全文のご利用をご希望の場合は、大阪大学の博士論文についてをご参照ください。

The University of Osaka Institutional Knowledge Archive : OUKA

<https://ir.library.osaka-u.ac.jp/>

The University of Osaka

論文審査の結果の要旨

Objective: Dysregulated expressions of disintegrin - metalloprotease proteins (ADAM and ADAMTS) have been reported in many types of cancers, and are believed to play important roles in cancer formation and metastasis. However, little is known about the expression of ADAMs and ADAMTS in the development of human cervical cancer.

Methods: Reverse transcriptase polymerase chain reaction, and immunoblotting were performed to assess the expression of several members of disintegrin-metalloproteases, and tissue inhibitor of metalloproteinases (TIMPs) in squamous-type cervical cancer cells, and oncogenically modified keratinocytes (immortalized human cervical keratinocytes transduced with Human papilloma virus-16 E6/E7 proteins with or without oncogenes). Immunohistochemistry of ADAM-9, ADAM-10 and TIMP-3 was performed on 31 primary human cervical tissue specimens of preinvasive, and invasive cervical carcinoma.

Results: mRNA levels of ADAM-9, ADAM-10, ADAM-12, TIMP-2 and TIMP-3 were upregulated as cervical cells progress from dysplastic to malignant lesions compared to normal cervical cells. These results were corroborated at the protein level by western blot analysis and immunohistochemistry.

Conclusion: The expression of disintegrin-metalloprotease and their endogenous regulators were dysregulated during cervical carcinogenesis. The aberrant expressions of ADAMs might contribute to the pathogenesis of cervical cancer formation and progression.

論文内容の要旨

〔 目 的 〕

Dysregulated expressions of disintegrin - metalloprotease proteins (ADAM and ADAMTS) have been reported in many types of cancers, and are believed to play important roles in cancer formation and metastasis. However, little is known about the expression of ADAMs and ADAMTS in the development of human cervical cancer.

〔 方法ならびに成績 〕

Reverse transcriptase polymerase chain reaction, and immunoblotting were performed to assess the expression of several members of disintegrin-metalloproteases, and tissue inhibitor of metalloproteinases (TIMPs) in squamous-type cervical cancer cells, and oncogenically modified keratinocytes (immortalized human cervical keratinocytes transduced with Human papilloma virus-16 E6/E7 proteins with or without oncogenes). Immunohistochemistry of ADAM-9, ADAM-10 and TIMP-3 was performed on 31 primary human cervical tissue specimens of preinvasive, and invasive cervical carcinoma. mRNA levels of ADAM-9, ADAM-10, ADAM-12, TIMP-2 and TIMP-3 were upregulated as cervical cells progress from dysplastic to malignant lesions compared to normal cervical cells. These results were corroborated at the protein level by western blot analysis and immunohistochemistry.

〔 総 括 〕

The expression of disintegrin-metalloprotease and their endogenous regulators were dysregulated during cervical carcinogenesis. The aberrant expressions of ADAMs might contribute to the pathogenesis of cervical cancer formation and progression.