

Anticancer Res. 2012 Aug;32(8):3455-61.

Decreased Immunoexpression of Standard Form of CD44 Is an Independent Favourable Predictor of Nodal Metastasis in Colorectal Carcinoma.

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Abstract

BACKGROUND:

CD44 is a transmembrane glycoprotein and is associated with cell-matrix and cell-cell interactions. CD44 expression was shown to be relevant to tumour progression in various types of human cancer. The objective of this study was to investigate the relationship between the expression levels of the standard form of CD44 (CD44s), and clinicopathological characteristics in a subset of colorectal carcinomas (CRC).

PATIENTS AND METHODS:

A total of 96 cases of CRC were retrieved from the archives at the Department of Pathology at King Abdulaziz University, Jeddah, KSA. Immunohistochemistry was performed using antibodies to CD44s. A cut-off of <10% of positive neoplastic cells was used to define low expression, 10-50% to define moderate expression and >50% to define extensive expression. Statistical tests were used to determine the association of CD44s with clinicopathological characteristics in a subset of colorectal carcinomas and survival.

RESULTS:

Immunostaining results showed that there was no association between CD44 immunoeexpression and age of patients, tumour grade, depth of invasion, vascular invasion, recurrence and survival. CD44s immunolabelling was found to have an association with nodal metastasis and to be an independent predictor of nodal metastasis.

CONCLUSION:

Loss of CD44s immunolabelling in CRC is an independent favourable predictor of regional lymph node metastasis. On the other hand, CD44s loss has no significant association with disease recurrence or survival. Extensive in vivo and in vitro molecular studies are required to elucidate the possible mechanistic association of CD44s with tumour initiation, progression, invasion and metastasis in primary CRC, and in nodal and distant metastases