

عنوان مقاله:

E-cadherin downregulation by promoter methylation is related to breast cancer progression and prognosis

محل انتشار:

نهمین کنگره بین المللی سرطان پستان (سال: 1392)

تعداد صفحات اصل مقاله: 1

نویسندگان:

Shohreh Alizadeh Shargh

Meral Sakizli

Vahid Khalaj

Abolfazl Movaffagh

خلاصه مقاله:

The E-cadherin gene (CDH1) located in chromosome 16q22.1, a region often associated with loss of heterozygosity (LOH) in human breast cancer. LOH at this site is thought to lead to loss of function of this tumor suppressor gene and was correlated with decreased disease-free survival, poor prognosis, and metastasis. Differential CpG island methylation in the promoter region of the CDH1 gene might be an alternative way for the loss of expression and function of E-cadherin, leading to loss of tissue integrity, an essential step in tumor progression. The aim of our study was to assess this methylation status, by Methylation-Specific Polymerase Chain Reaction (MSP), the methylation pattern of the CDH1 gene and its possible correlation with the expression of E-cadherin and other standard immunohistochemical parameters (stage, grade, number of tumors, chemotherapy history and metastasis) in a series of 50 primary breast cancers all with ductal type and 50 normal breast tissue from the same patients that located adjacent to tumor region as controls. CDH1 hypermethylation was observed in 94% (47 Of 50) of the cases of ductal carcinoma. Reduced levels of E-cadherin protein were observed in 85% of our samples. The levels of E-cadherin expression tended to diminish with the CDH1 promoter region methylation. In the group of 50 ductal carcinomas, most of the cases of showing CDH1 hypermethylation also presented reduced levels of expression of E-cadherin proteins (95% of full methylated tumor samples had no protein expression and 4.5% of them had weak expression levels), and a possible association was observed between CDH1 methylation and its protein expression ($p = 0.000$, χ^2 test). Our preliminary findings suggested that abnormal CDH1 methylation occurs in high frequencies in ductal breast cancers associated with a decrease in E-cadherin expression in a subgroup of cases characterized by loss of expression of other important genes to the mammary carcinogenesis process, probably due to the disruption of the mechanism of maintenance of DNA methylation in tumoral cells.

کلمات کلیدی:

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/713171>

