البحث الثالث:

عنوان البحث باللغة الإنجليزية

Immunohistochemical Expression of Stanniocalcin 2 in Colorectal Cancer: A Retrospective Egyptian Study

المشتركون فى البحث:

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ملخص البحث:

Abstract

Background & Objective: Colorectal cancer is the third most common cause of cancer death worldwide. Stanniocalcin 2 (STC2) is a glycoprotein hormone over-expressed in many human cancers where it regulates tumor progression and invasion. Evaluating its expression in colorectal cancer and its relation with different clinicopathological parameters can provide valuable information about its role in colorectal cancer progression and behavior.

Methods: This retrospective study was conducted on tissue samples of colorectal cancer. The STC2 immunohistochemical expression was detected and evaluated in 60 cases of colorectal cancer tissue samples of formalin-fixed and paraffin-embedded blocks. Then statistical analysis was performed to assess the relationship between its expression level and several clinicopathological parameters in the studied cases. Results: Statistically significant associations were found between the high level of STC2 immunohistochemical expression and histological tumor grade ($P<0.001$), tumor depth of invasion (T stage) ($P=0.004$), lymph node metastasis (N stage) ($P=0.001$), tumor Dukes' stage ($P<0.001$), the presence of lymphovascular invasion ($P<0.001$), and perineural invasion ($P<0.001$).

Conclusion: STC2 over-expression in colorectal cancer may be associated with more aggressive tumor behavior including increased tumor invasion, higher histological grade, higher rate of nodal metastasis and increased incidence of lymphovascular and perineural invasions. These data suggest a potential role for STC2 as a predictive biomarker for tumor behavior in colorectal cancer patients.

Key words: Colorectal cancer, Immunohistochemical expression, Stanniocalcin 2 (STC2)