عنوان مقاله:

Biological and Clinicopathological Significance of Cripto-۱ Expression in the Progression of Human ESCC

محل انتشار:

مجله گزارش های بیوشیمی و زیست شناسی مولکولی, دوره 5, شماره 2 (سال: 1396)

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خلاصه مقاله:

Background: Human Cripto-۱, a member of the EGF-CFC family, is involved in embryonic development, embryonic stem cell maintenance, and tumor progression. It also participates in multiple cell signaling pathways including Wnt, Notch, and TGF-β. Remarkably, it is expressed in cancer stem cell (CSC) compartments, boosting tumor cell migration, invasion, and angiogenesis. Although Cripto-۱ is overexpressed in a variety of human malignant tumors, its expression in esophageal squamous cell carcinoma (ESCC) remains unclear. Our aim in this study was to evaluate the possible oncogenic role of Cripto-۱ in ESCC progression and elucidate its association with clinicopathological parameters in patients. Methods: In this study, Cripto-۱ expression in ۵۰ ESCC tissue samples was analyzed and compared to corresponding margin-normal esophageal tissues using quantitative real-time PCR. Results: Cripto-۱ was overexpressed in nearly ۴۰% of ESCC samples compared with normal tissue samples. Significant correlations were observed between Cripto-۱ expression and tumor differentiation grade, progression stage, and location ($p < ۰.۰۵$). Conclusions: Our results indicate that overexpression of Cripto-۱ is involved in the development of ESCC. Further assessment will be necessary to determine the role of Cripto-۱ cross talk in ESCC tumorigenesis.

کلمات کلیدی:

Cancer stem cell, Cripto-۱, ESCC, Expressional analysis, Real-time PCR