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## عنوان مقاله:

Clinicopathological Significance of Tumor Stem Cell Markers ALDH1 and CD133 in Colorectal Carcinoma

محل انتشار:

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## خلاصه مقاله:

Background & Objective: Colorectal cancer (CRC) is the third most common cancer worldwide with a high mortality rate. The main causes of death in patients are recurrence and metastasis which are mainly attributed to the small subpopulation of cells within tumors called cancer stem cells (CSCs). This study aimed to evaluate the correlation between the expression of AHDL1 and CD133 as CSC associated markers and clinicopathological characteristics in CRC. Methods: In this cross-sectional study, a total of 483 CRC tumor samples were immunohistochemically stained for detection of CD133 and ALDH1 markers. Correlations of marker expression with clinicopathological factors were also evaluated. Results: There was a significant correlation between the luminal intensity of CD133 and neural invasion (p =0.05) and between the cytoplasmic intensity of CD133 and metastasis (p =0.05). In terms of H-score, a positive significant relation was observed between cytoplasmic expression of CD133 and lymph node (p =0.02), neural (p =0.04) and vascular invasion (p =0.02). The ALDH1 cytoplasmic expression showed a significant correlation with tumor size (p =0.001). Conclusion: Our findings showed that increased expression of CD133 and ALDH1 is associated with tumor progression and worse outcomes in CRC patients. These markers can be good candidates for localized targeting of CSCs using antibodies. Future researches need to be improved approaches for early detection .of CRC, and treatment monitoring for CRC and other cancers

**کلمات کلیدی:** ALDH1, Cancer Stem Cells, CD133, Colorectal cancer

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