عنوان مقاله:

Evaluation of L-fucose and Sialic Acid Levels in Patients With Colorectal Cancer and Control Subject

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خلاصه مقاله:

Background: Currently, glycans, which are known as functional molecules in the biological system, are being under study as potential cancer markers. This study aimed to determine the level of serum L-fucose and sialic acid as the biomarkers in patients with colorectal cancer (CRC). Materials and Methods: The patients with CRC (n=۴۰, ۲۰ men and ۲۰ women) participated in the present study. The spectrophotometric method was used to measure the levels of L-fucose and sialic acid in the serum of the patients. SPSS (version ۲۱) was used to analyze the obtained data. The results were expressed as mean ± SD. Results: The mean ± SD L-fucose level in patients with CRC was ۲۷.۴۶ ± ۴.۸ ng/mL, which was more than this level in the healthy control group (۱۸.۶۴±۳.۱ ng/mL). Also, the mean ± SD serum concentration of sialic acid in patients with CRC was ۲.۱ ± ۰.۴۱ ng/mL, which was more than the mean ± SD sialic acid level of ۱.۲۳±۰.۲۱ ng/mL in the healthy controls. Conclusion: Serum concentration of L-fucose and sialic acid increased significantly (P < ۰.۰۵) in patients with CRC compared with the healthy controls. We believe that determining serum L-fucose and sialic acid levels could be useful for the detection of CRC patients in the early stage.

کلمات کلیدی:

Colorectal cancer, glycosylation, serum markers

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