

عنوان مقاله:

The association between fecal enterotoxigenic *Bacteroides fragilis* with colorectal cancer

محل انتشار:

بیستمین کنگره بین المللی میکروب شناسی ایران (سال: 1398)

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خلاصه مقاله:

Introduction and Objective: Enterotoxigenic *Bacteroides fragilis* (ETBF) is an enterotoxin-producing bacterium that possibly has a role in the occurrence and progression of colorectal cancer (CRC) by modulating the mucosal immune response and inducing epithelial cell changes. The aim of this study was to investigate the frequency of ETBF in stool samples of CRC patients and healthy volunteers. **Materials and Methods:** A total of 60 stool samples from confirmed CRC patients and 60 stool samples from healthy volunteers with no personal or familial history or diagnosis of colorectal disease were collected. Stool samples were screened for direct detection of *B. fragilis* using PCR targeting the marker genes of *neu* and *bft*. Enterotoxin isotypes *bft-1*, *bft-2* and *bft-3* were also detected in *B. fragilis* positive samples. **Results:** The frequency of *B. fragilis* among CRC and control cases was 58.3% and 26.6%, respectively ($P < 0.05$). Enterotoxin isotype *bft-2* was detected with higher frequency among CRC patients than healthy control ($P < 0.05$). **Conclusions:** Our results show the association between fecal ETBF and CRC, and we suggest that detection of ETBF may be a potential marker for colorectal cancer diagnosis. However, additional investigations on .tumor and paired normal tissue samples are required to substantiate this possible correlation

کلمات کلیدی:

Bacteroides fragilis, Enterotoxin, *bft* gene, Colorectal cancer, Stool

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