Texila International Journal of Basic Medical Sciences
Conference Proceedings Edition 2019

Role of Gut Microbiota Dysbiosis in the Development of Colorectal Cancer – A Scoping Review

Article by Imran Shareef Syed[1], Jessica Dasari[2]
[1-2]MD-4 students, College of Medicine, Texila American University
Faculty Advisor: Dr. Pendru Raghunath, College of Medicine, Texila American University

Abstract

Introduction: *Colorectal Cancer (CRC) has the highest mortality rate and is recorded to be the third most common cancer worldwide. The cause of colorectal cancer is multifactorial and multigenic. The gut has huge commensal microorganisms to maintain homeostasis by regulating various biological functions such as mucosal barrier, immunity, and metabolic processes. Accumulating evidence indicates that the gut bacteria play a crucial role in human health, and the dysbiosis of the gut microbiota is associated with various disorders, including obesity, diabetes, inflammatory bowel disease, and many types of cancer especially colorectal cancer. We conducted a systematic review to study the association between the gut microbiota dysbiosis and its risk for colorectal cancer.*

Methods: *The search was conducted in MEDLINE. Titles and abstracts were screened, full-text studied and information extracted for qualitative synthesis. The exposure was dysbiosis of microbiota in colon and the outcome was the colorectal cancer.*

Results: *Our search resulted in 186 studies. By applying several filters needed to our research, finally four studies were selected for synthesizing the qualitative data. These studies have shown that some of the gut microbiota such as anaerobic bacteria were significantly increased in CRC patients.*

Conclusion: *Although the available data suggest an association between dysbiosis of gut microbiota and colorectal cancer, it is limited; hence, more investigations are required to further confirm this. In the future, targeting the gut microbiota by changing food habits, life style, antibiotics and probiotics will probably be a powerful weapon in the battle against CRC.*

Keywords: *Colorectal cancer, Dysbiosis, Microbiota, Probiotics.*