FECAL MICROBIOTA TRANSPLANTATION IN GASTROINTESTINAL DISEASES: 2016 UPDATE AND THE ROAD AHEAD

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Discussion:
Fecal microbiota transplantation (FMT) has been rapidly adopted as a major therapeutic modality for the treatment of recurrent Clostridium difficile infection (CDI) given its consistent and extraordinary clinical cure rates > 85 percent. FMT shows promise in reducing colectomy and mortality rates associated with severe and complicated CDI. With the emergence of FMT in clinical practice, the vital role of gut microbiota has become more apparent in health and disease. A myriad of ailments, such as chronic inflammatory diseases, irritable bowel syndrome, obesity, diabetes, autism, NASH, hepatic encephalopathy among others, are linked to abnormal gut microbiota composition and function. In the treatment of recurrent CDI, FMT was observed to reverse CDI related dysbiosis and to sustainably restore healthy gut microbial communities. Current and future trials focus on harnessing the gut microbiota to preserve health and cure disease. Despite FMT’s widespread use and success, numerous questions and concerns surrounding its short-term and long-term safety remain. As therapeutic product, FMT has been evolving from blended fresh stool to readily available frozen-and-thawed full spectrum microbiota based preparations and future “synthetic” products with well-defined microbial composition in liquid or encapsulated formulations.

Keywords: Fecal microbiota transplantation, C. difficile, Gut microbiota, Inflammatory bowel disease, Irritable bowel syndrome, Probiotics

Citation: