Modulating microbiota for IBD control
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Introduction: Prevalence of IBD in Asia is still lower than that in western countries, however it is increasing in recent years. The pathogenesis of IBD remains unclear and more evidences reveal intestinal microbiota to play an important role in IBD, especially in ulcerative colitis UC. Therapies via modulating gut microbiota have been introduced to IBD, including probiotics, prebiotics and fecal microbiota transplantation (FMT). Gut microbiota reconstruction has been becoming a trending topic in IBD, clinical medicine and life science. The lecture will report our FMT trial to treat IBD and other relevant studies.

Prebiotics and Probiotics to treat IBD: In clinical investigations, prebiotics such as oligofructose and probiotics such as VSL#3, EcN have been observed to treat active UC patients, which showed some of such preparations were able to relieve IBD.

Fecal Microbiota Transplantation to treat IBD: We reviewed FMT treatment for IBD and report our clinical trial with FMT for treating the IBD. In a pilot study for UC patients, the clinical manifestations and laboratory results improved significantly with an apparent reduction of Mayo Scores and Endoscopic Mayo Scores in seven months follow-up. In a consequent cohort study, patients with severe or refractory UC received FMT. Significant reduction of Mayo Scores and Endoscopic Mayo Scores were obtained after FMT. The clinical remission rate was from 47.1% to 64.7%, and the endoscopic remission rate was from 52.9% to 76.5%. Only a few adverse reactions were observed, such as abdominal discomfort and low fever emerged transiently. Microbiome sequencing showed that the diversity of intestinal microbiota of UC patients was reconstructed and transformed to healthy donor's gradually after FMT. Finally, the lecture makes a prospective of IBD treatment through the modulation of gut microbiota with synthetic microbes under development.

Conclusion: Microbiota modulation is a promising and effective modality for IBD especially ulcerative colitis. Further studies regarding the clinical RCT, multi-omics and molecular pathways are needed and will help us to precisely understand and use microbiota to IBD.

Biography
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