Role of Probiotics and Prebiotics in Functional Gastrointestinal Disorders in Children

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Introduction:
Functional gastrointestinal disorders (FGID) are non-fatal, unknown etiology disorders with absence of a structural or biochemical explanation and accounting for up to 50% of gastroenterology referrals. Infant regurgitation, rumination and cyclic vomiting constitute the vomiting disorders. Abdominal pain disorders are classified as: functional dyspepsia, irritable bowel syndrome (IBS), functional abdominal pain, abdominal migraine and aerophagia. Disorders of defecation include: infant dyschezia, functional constipation, functional fecal retention and functional non-retentive fecal soiling. Current researches suggest a role of gut microbiota in pathogenesis of FGID and qualitative and quantitative alterations in the normal gut flora in some functional disorder such as IBS, chronic constipation and formula-fed infants which suffering colic or regurgitation have been described. Probiotics are nonpathogenic microorganisms, when they are ingested, have positive effects on the host’s health. They influence intestinal physiology by different ways. Prebiotics are non-digestible carbohydrates which promote the growth and/or activity of probiotic bacteria. Evidences for the therapeutic or preventive effect of particular probiotic strains with or without prebiotics in FGID are available in many of articles. Results are encouraging in symptomatic alleviation and improvement in quality of life in IBS, functional constipation, functional abdominal pain, infantile colic, aerophagia and infantile regurgitation.

Conclusion:
Different probiotic strains have different effects, so selection of strains with specific health benefits is important. In general according to review of articles, although some of specific probiotic strains can provide a health benefit in these disorders, it seems, more high-quality and long-duration placebo-controlled trials are required.

Keywords: Functional gastrointestinal disorders, Probiotic.

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