

Abstract

Intestinal microflora consists of large bacterial community that resides in the intestines, especially the colon, and lives in symbiosis with the host. It consists mainly representatives of the four bacterial strains (Actinobacteria, Bacteroidetes, Firmicutes and Proteobacteria). It has already been shown that the proportional representation of the bacterial strains in time does not change much, but the research of the last decade have shown irrefutable effect between the change of diet and composition of the intestinal microflora. In addition, there is evidence of changes in the representation of bacterial strains in the course of development of certain intestinal pathologies such as inflammatory bowel disease. More and more are starting to emerge papers describing the influence of altered intestinal microflora respectively its representatives, on the activity and function of the CNS. This interaction of the digestive system and CNS seems to be bidirectional and mediated by several different pathways. Finally, it shows that dysbiosis of the intestinal microflora promotes anxiety and depression that can lead to the urge to prematurely terminate life. The aim of this work is to provide a comprehensive view of this relatively young, but also very interesting issue.

Keywords: intestinal microflora, central nervous system, dysbiosis, IBS, IBD, behavior of organism