

Abstract:**Large intestinal microbiota in inflammatory bowel disease and colorectal neoplasia**

Sporadic colorectal cancer (CRC) and inflammatory bowel disease (IBD) represent an immense problem worldwide. Precise definition of all the potential contributors to the pathogenesis of CRC and IBD remain a challenge. Large intestinal microbiota play an extremely important role. Investigation of serum anti-porin antibodies (aimed at porin C in the cell wall of *E. coli*) belonged to the objectives in the first part of our work. We have confirmed, that patients with IBD and patients with CRC had increased levels of anti-porin antibodies. Bacteriocinogeny and investigation of *E. coli* genotypes belonged to the aims in the second part of our work. Bacteriocins are small proteins produced by bacteria of *Enterobacteriaceae* family and are characterised by its antibacterial, antineoplastic, probiotic and proapoptotic effect. We have confirmed higher bacteriocinogeny and presence of more virulent strains of *E. coli* in patients with advanced colorectal adenoma and colorectal carcinoma. All these results confirm contribution of large intestinal microbiota to the development of colorectal pathologies.