

EV0356

ePoster Viewing

Changes in the intestinal flora

The impact of intestinal microbiota on the occurrence of inflammatory bowel disease flare in children and adolescents

K. Jermakow¹, M.M. Biernat¹, M. Pajaczkowska¹, G. Gosciniak¹

¹*Department of Microbiology- Wroclaw Medical University, Wroclaw, Poland*

Objectives: Inflammatory bowel disease (IBD) is a group of inflammatory diseases of the gastrointestinal tract with persistent and recurrent course. Despite extensive attempts to determine the causative genetic, immunological or infectious factors, the pathogenesis of IBD is still unknown. The aim of the study was to analyze retrospectively the results of stool samples of children and adolescents diagnosed with IBD in years 2012-2013., in the period of exacerbation of the disease, in order to determine the most common infectious agent responsible for the exacerbation of IBD.

Methods: The presence of gastrointestinal infections (Salmonella, Shigella, Campylobacter, Yersinia, adenoviruses, rotaviruses, Candida and Clostridium difficile) was assessed in the samples of faeces in patients with Cohn's disease (CD) and ulcerative colitis (UC).

Results: The retrospective study included 378 patients aged from infancy to 18 years of age (mean age: 10, 4) with CD (n=48), UC (n=110), and children during diagnosis of inflammatory bowel disease (n=220). The most common symptoms in this group of patients were as follows: chronic diarrhea with or without blood, severe abdominal pain, and bleeding from the lower part of the colon. Among 378 stool samples tested for C. difficile toxins A/B, fifty samples (13%) were positive. The obtained cultures isolated from patients' stool samples were positive for Candida spp. (140/297, 47%), but the abundant growth of strain was observed only in 19 samples (14%). Campylobacter was identified in 2 patients, and Yersinia enterocolitica in 1 patient. Salmonella and Shigella were not detected. The 69 stool samples were tested for the presence of viruses and Rotavirus infection was detected in 5 children(7%) whereas adenovirus infection in one (1.4%).

Conclusions: Bacterial and fungal intestinal flora might be an important risk factor for the exacerbation of IBD in children. Identification of pathogens or their toxins in the stools of persons with IBD, requires the use of appropriate therapy. Short term remission due to bacterial or fungal infection could have serious consequences in this group of patients such as nutritional deficiencies, growth retardation, delayed puberty.