



EV0356 THE IMPACT OF INTESTINAL MICROBIOTA ON THE OCCURRENCE OF INFLAMMATORY BOWEL DISEASE FLARE IN CHILDREN AND ADOLESCENTS.

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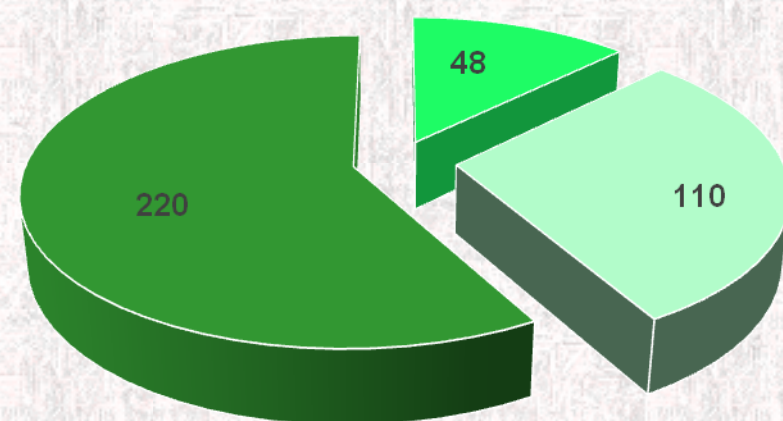
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Objective: Inflammatory bowel disease (IBD) is a group of inflammatory diseases of the gastrointestinal tract with persistent and recurrent course. Despite extensive attempts to determine the causative genetic, immunological or infectious factors, 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.

Material and 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 Crohn's disease (CD) and ulcerative colitis (UC).

FIG.1. NUMBER OF PEDIATRIC PATIENTS WITH GASTROINTESTINAL INFECTIONS



- Crohn's disease (CD)
- Ulcerative Colitis (UC)
- Inflammatory Bowel Disease (IBD)

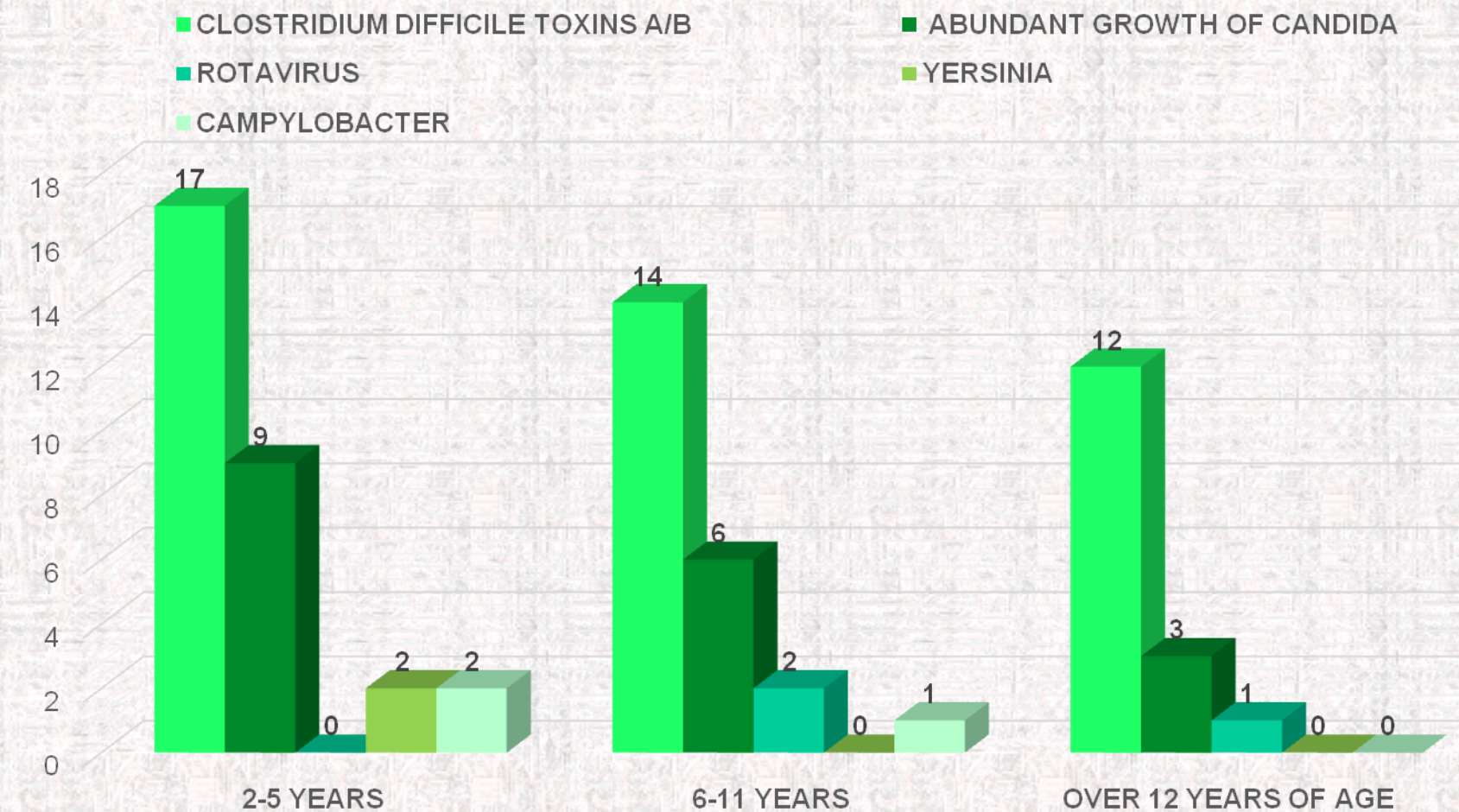
TAB.1. CULTURE AND SEROLOGICAL TESTS RESULTS.

	TOTAL NUMBER OF TESTED SAMPLES	NUMBER OF POSITIVE SAMPLES	% OF POSITIVE SAMPLES
SALMONELLA	297	0	0
SHIGELLA	297	0	0
CAMPYLOBACTER	197	2	1
YERSINIA	197	1	0,5
PATHOGENIC E. COLI STRAINS	18*	0	0
CLOSTRIDIUM DIFFICILE TOXINS A/B	378	50	13
ROTAVIRUSES	69	5	7
ADENOVIRUSES	69	1	1,4
CANDIDA	297	121 /NF 19 /ABUNDANT GROWTH	NF** 6

*identification of pathogenic strains of *Escherichia coli* is recommended in children under 2 years of age

** NF – NORMAL FLORA- A poor growth of *Candida* is considered as part of gastrointestinal microbiota.

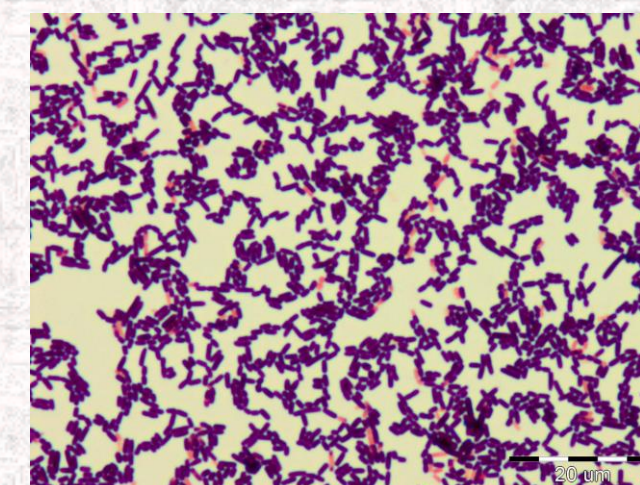
FIG.2. THE PREVALENCE OF ISOLATED MICROORGANISMS IN DIFFERENT GROUP OF AGE [%]



Results:

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. No infections were noted in patients from 0 to 2 years of age.

FIG.3 CLOSTRIDIUM DIFFICILE FROM CULTURE – GRAM-STAIN (made by authors)



Conclusions:

- Bacterial 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.