

STANDPOINT

According to Order No R-109-264/June 23, 2022 of the Rector of the Medical University of
Varna

by Prof. Dimitrichka D. Bliznakova, MD, PhD.

Concerning: the competition for Associate Professor of Krasimira Ivanova Koleva, MD, PhD

Krasimira Ivanova Koleva was born on June 17, 1966 in the village of Vetrino, Region of Varna. She graduated from 'Dimitar Polyakov' Fifth Secondary school. She graduated in medicine in 1999.

Professional career:

She specializes pediatric diseases with a successfully passed examination in 2009. After specialization in pediatric gastroenterology she successfully passes examination in 2016. Since 2018, she is assistant in the speciality of pediatric gastroenterology and pediatrics in the Department of Pediatrics of the Medical University of Varna.

Academic career:

between 2019 and 2021, she is independent doctoral student at the Department of Pediatrics, in the speciality of 'Pediatric gastroenterology'. She defends a dissertation on the theme: 'Some contemporary diagnostic aspects of inflammatory bowel diseases in children and adolescents'.

Scientometric indicators:

Author's dissertation summary: dissertation

Monographs: one with a total volume of 145 pages

Articles: 37 in number with a total volume of 112 pages

Participations in scientific forums and research projects:

Assessment of the expression levels of selected microRNAs as potential biomarkers in children and adolescents with inflammatory bowel diseases.

Membership in professional organizations: BPA; Bulgarian Society of Genetics, Bulgarian National Society of Pediatric Gastroenterology; ECCO; ESPGAN.

She has command of: Bulgarian language, English language, and Russian language

The main trends in which Dr. Koleva works are:

- **Diagnosis and treatment of inflammatory bowel diseases in children and adolescents**
- **Diagnosis and treatment of gastrointestinal diseases in children and adolescents**
- **Diagnosis and treatment of liver diseases in children and adolescents**

Contributions related to the main directions of the scientific works:

Diagnosis and treatment of inflammatory bowel diseases in children and adolescents.

The scientific work submitted 'Novelties in the treatment of ulcerative colitis and Crohn's disease in childhood and adolescence' considers one of the important and actual problems in the field of pediatric gastroenterology. The issues of the ulcerative colitis and Crohn's disease discussed are extraordinarily topical bearing in mind their increasing incidence rate not only worldwide but also in our country. During the recent years, a considerable advance in terms of the diagnosis and treatment of these chronic diseases was achieved. In the work, the literature and the long-year experience of Dr Koleva and the gastroenterologists at the second Pediatric Clinic were generalized. The work consists of:

First chapter: the social epidemiology of the ulcerative colitis and Crohn's disease is maintained.

Second chapter: a main focus is devoted to the contemporary diagnosis of the inflammatory bowel diseases:

- laboratory diagnosis

- imaging diagnosis
- microRNA in Crohn's disease and ulcerative colitis in childhood and adolescence
- intestinal microbiome in Crohn's disease and ulcerative colitis in childhood and adolescence

Third chapter: a special attention is paid to the individual quality of life of the children and adolescents with Crohn's disease and ulcerative colitis.

Fourth chapter: contain the modern treatment of the Crohn's disease and ulcerative colitis in childhood and adolescence: nutrition, drug and surgical treatment.

Fifth chapter: economic analyses of the abovementioned diseases

Sixth chapter: the experience with the treatment of Crohn's disease and ulcerative colitis in childhood and adolescence has been shared.

The scientific work presented is a contemporary and actual practical manual for the pediatric gastroenterologists, pediatricians, pediatric surgeons, specialists in imaging diagnosis and GPs. The steps during the diagnosing of the ulcerative colitis and Crohn's disease in childhood that include the corresponding inflammatory markers for making the final diagnosis based on the key endoscopic, histological and x-ray findings have been enumerated. The examination of cytokines such as interleukin 15, tumour necrosis factor alpha and interferon gamma has been recommended as a considerable expression of interleukin 15 in the intestinal epithelium in patients with intestinal disease has been established and immunohistochemically confirmed. It has been established that CRP positively correlates in Crohn's disease. The serum concentrations of hepsidin, serum iron, and ferritin have been followed-up and statistically significantly higher hepsidin concentrations in Crohn's disease and negative correlation dependence between fecal calprotectin and hepsidin in ulcerative colitis have established. The follow-up of calcium and phosphorus in children with inflammatory bowel diseases represents an interest. The metabolites of vit. D have been followed-up and hypocalcemia has been established in a great percentage of the cases. The concentrations of two new markers of the inflammation and the increased permeability of the intestines have been examined - zonulin in feces and in serum and protein-binding intestinal fatty acids in serum. An increase of the concentration of the fecal zonulin and fecal calprotectin has been established. Catelidicine is a new potential marker for the inflammatory bowel diseases as negative correlation dependence between it and fecal calprotectin has been observed. Besides a statistically significant increase of fecal lactoferrin concentrations in patients who have survived exsacerbation of their condition has been established. Procalcitonin has a potential clinical importance in children with inflammatory bowel diseases, too. A high sensitivity of the antineutrophilic cytoplasmic antibodies has been established, too.

The imaging diagnosis is leading in the diagnosis of the inflammatory bowel diseases: abdominal echography and hydromagnetic resonance imaging. The magnetic resonance enterography elaborated plays a crucial role in the assessment of the severity, localization, dissemination and complications of the inflammatory bowel diseases in children. Crohn's disease is the main indication for the performance of wireless capsule endoscopy.

MicroNAs are of extraordinarily crucial importance for the diagnosis of ulcerative colitis and Crohn's disease. They represent a class of endogenous, small non-coding RNAs which regulate gene expression acting at the place of interaction between environment and hereditary molecular and cellular phenotypes. They represent biomarkers of the abovementioned diseases.

Intestinal microbiome is important ulcerative colitis and Crohn's disease, too. Its disturbance is related to dysbiosis. It is associated with the development, maintenance and storage of various pathological intestinal and extraintestinal conditions.

The main medicamentous means which block the inflammation in the patients with inflammatory bowel diseases are considered, too: 5-aminosalicylates, corticosteroids, immunosuppressive and biological preparations. Attention has been paid to the nutrition as a diet rich in fruits and vegetables and with low Omega 6 polyunsaturated fatty acids contents has been recommended. The necessity of a surgical treatment in the cases with a complication has been analyzed.

An original algorithm for the diagnosis of the inflammatory bowel diseases in childhood and adolescence has been elaborated.

Diagnosis and treatment of gastrointestinal diseases in children and adolescents

Several nosological units taking their course with chronic diarrhea in childhood such as celiakia, cystic fibrosis, lactase deficiency, irritable bowel syndrome and inflammatory bowel diseases and causing nausea and vomiting in childhood have been considered. Different reasons and diseases which cause nausea

and vomiting in childhood have been discussed. The peculiarities of food allergy in childhood are commented as the clinical picture of food allergy and, especially, of eosinophilic esophagitis, gastritis and gastroenteritis, atopic dermatitis, allergic proctocolitis, and contact dermatitis has been presented.

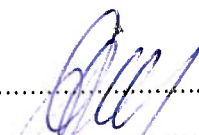
Diagnosis and treatment of liver diseases in children and adolescents

During the last years, the number of the children with metabolic syndrome increased. Several articles are devoted to the non-alcoholic fatty liver disease. The pathogenesis of the fatty liver degeneration and its relationship with obstructive sleep apnea in children has been commented. For the first time in Bulgaria, the role of the microRNAs, serological tests and elastography for the diagnosis of the non-alcoholic fatty liver disease has been analyzed.

Conclusion: By analyzing the scientometric indicators of Krasimira Ivanova Koleva, MD, PhD, presented and becoming familiar in detail with the scientific work submitted 'Novelties in the treatment of ulcerative colitis and Crohn's disease in childhood and adolescence' I consider that the candidate is extraordinarily well-prepared and familiar with the problems of the pathology in childhood discussed. The survey has been made with competence and mastery, the results have been processed and the discussion has correctly been performed. So, when reading, we remain with the impression about informative value, routine and extraordinarily good practical experience and thus we can cite one of the known Fooler's thoughts: 'Theory is a treasure, the key for which is good clinical practice'.

I propose to the honoured Scientific jury to award the academic position of 'Associate Professor' in the scientific speciality of 'Pediatrics' to Krasimira Ivanova Koleva, MD, PhD. Предлагам на

August 4, 2022.

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Prof. D. Bliznakova, MD, PhD

