

using the Bronchitis Severity Score (BSS). According to this scale, mild bronchitis was verified in 30 patients which formed the I clinical group, and 128 children had moderate bronchitis (II clinical comparison group).

Acute bronchitis occurred in 34.8% of cases, in 65.2% there was a recurrent nature of bronchitis. In 21.6% of patients the simple nature of bronchial tree inflammation was verified, in 78.4% - obstructive, and in 5.7% of cases signs of purulent endobronchitis were found. At the same time, in children of group II with moderate bronchitis in 6.2% of cases have a history of allergic reaction to drugs, and in patients of group I drug allergy was not observed. On average, children of the first clinical group were ill 11.2 ± 1.66 days before inpatient treatment, and the second group - 6.7 ± 0.68 days ($p = 0.05$). Aggressive inflammation of the bronchi in children with moderate inflammation of the bronchial tree compared with patients with mild bronchitis was accompanied 1.6 times more often by recurrence, a history of episodes of community-acquired pneumonia in 9.4% of patients, long-term inpatient treatment (odds ratio 2.6) and halving the duration of the outpatient treatment period. The study of clinical severity of bronchitis in children of the comparison groups made it possible to establish an increase in the chances of a more severe course of the disease on the 7th day of hospitalization in children with moderate bronchitis (odds ratio 4.8) with persistence of cough in 68.7% of children in this group (odds ratio 3.8). Evaluation of inpatient treatment tactics indicated the need to increase the volume of complex therapy in patients with moderate bronchitis relative to children with mild disease (odds ratio 12.0, relative risk 8.8), as well as increasing the risk of the need for antibacterial therapy (odds ratio 3.7, relative risk 2.8) and the appointment of parenteral antibiotics for more than 3 days (odds ratio 5.0, relative risk 1.1).

Thus, patients with a moderately severe course of the disease, in comparison with patients with mild bronchitis, require a larger volume of complex deobstructive therapy (odds ratio 12.0), 1.6 times more often have indications for prescribing antibacterial drugs (odds ratio 2.5) and longer need to use parenteral antibiotic therapy (odds ratio 5.0). Every third child of the II clinical group (35.2%) need to continue deobstructive therapy at the outpatient-polyclinic stage, and markers of the local inflammatory process in such children were associated with statistically worse results of complex inpatient treatment, assessed on the clinical scale of bronchitis severity.

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SPECIFICS OF ELEMENTAL STATUS IN CHILDREN WITH CHRONIC CONSTIPATION

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Diseases of the large intestine (LI) occupy a significant place in the structure of chronic diseases of the digestive system. Along with functional pathology and inflammatory diseases, conditions caused by developmental abnormalities and the position of the LI cause concern, among which the most frequent one is dolichosigmoid (45-50%) that indirectly creates the basis for the development of chronic inflammatory and functional diseases not only of the LI, but of the entire digestive system.

We had examined children with CC against the background of congenital anomalies of the large intestine, who were born and live in Chernivtsi. We have checked the levels of 33 chemical elements (9 toxic, 8 potentially toxic and 16 vital) using the method of inductively coupled plasma atomic emission spectrometry in Price B.

The analysis of findings has revealed probable decrease in the levels of essential micro- and macro-elements as compared to the values in the reference group. Hence, all the patients showed various degrees of deficiency of such mineral components as magnesium, selenium, chromium, zinc, and manganese. The study of the micro-elemental status of the children from the main group revealed a pronounced deficiency of microelements in whole blood. Thus, the majority of patients (70.35 ± 3.48 %) showed a probable (>0.05) decrease in the levels of selenium. Selenium is a microelement, which serves the function of protecting cell membranes from the effect of free radicals and reactive oxygen intermediates. In this case, the deficiency of selenium can testify to the

decrease of antioxidant defense. The deficiency of zinc, which is part of more than 200 metalloenzymes of the body, has been found in 50.58 ± 3.81 % of patients. Lower levels of chromium, the main functions of which is to ensure the transport of glucose through cell membranes, participation in the synthesis of lecithin, cholesterol, fatty acids, detoxification of the body, building muscle bulk and muscle strength, has been found in 69.77 ± 3.50 % of patients. We have found reduced levels of manganese, which is essential for the formation of connective tissue, activation of mitochondria, ensuring higher levels of ascorbic acid in the body, in 50.0 ± 3.81 % of patients. The deficiency of such a macro-element as magnesium, which actively participates in the synthesis and maturation of collagen, has been found in the majority of patients 80.81 ± 3.0 %.

Therefore, as a result of studying the elemental status of children with chronic constipation caused by the congenital elongation of the sigmoid colon, it has been established that the deficiency of magnesium, chromium and selenium leads to the progression of the pathological process and acceleration of decompensation development, which can be used as a prognostic index – a marker of elemental deficiency. In the event of selenium and zinc deficiency, we can observe the development of non-specific non-ulcerative colitis in children with chronic constipation. The level of selenium in blood can be used as an informative indicator of adaptive abilities of the body and the decrease of the compensatory ability, i.e as a so-called mineral predictor.

Therefore, a comprehensive assessment of functional disorders of the bowels allows having an in-depth understanding of the condition of the large intestine: motor-evacuation disorders; trophic base, infrastructure, quality and quantity composition of the microflora, its metabolic activity; epithelial energy supply; factors of specific and non-specific defense of the body. The data received help determine the mechanisms of functional and organic pathology formation in the bowels against the background of the congenital elongation of the sigmoid colon, which in turn will allow working out a protocol of choosing an adequate, comprehensive, conservative therapy.

So, a decrease in the levels of collagen-specific bioelements of magnesium, chromium, manganese, selenium and zinc is typical for all the children with chronic constipation caused by dolichosigmoid. Dependence has been established between the specifics of the clinical course of chronic constipation and the elemental status, which will allow implementing individual approach to the choice of pharmaceuticals and nutraceuticals for the correction of diselementosis.

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THE ASSOCIATION BETWEEN PEDIATRIC TYPE 1 DIABETES MELLITUS AND COVID-19

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COVID-19 outbreak modified type 1 diabetes management both in adults and children. The pediatric population is affected by COVID-19 in a milder manner, but the possibility of SARS-CoV-2 acting as a trigger for the autoimmune destruction of the beta-cells and leading to an increase in the incidence of type 1 diabetes is still unknown.

The aim of the study was to assess the possible impact of the COVID-19 pandemic in the pediatric population with diabetes mellitus and its association with new cases due to the literature review. Material and methods: Web of Science search for medical publications was performed in English for 2019-21; the search terms that were used included “COVID-19” and “diabetes mellitus”, 67 publications were obtained, only every third publication was included in the study.

Due to recent reports, the association between type 1 diabetes mellitus and increased morbidity and mortality rates during COVID-19 infection in adults was demonstrated. New-onset cases of diabetes mellitus and severe metabolic complications of preexisting diabetes, including diabetic ketoacidosis and hyperosmolarity have been observed in both adult and pediatric patients with COVID-19. SARS-CoV-2 can trigger severe diabetic ketoacidosis at presentation in individuals with new-onset diabetes. However, there is no hard evidence that SARS-CoV-2 induces type 1 diabetes mellitus on its own accord. Children and adolescents with diabetes mellitus are strongly encouraged to adhere to preventive and protective measures against the viral spread, if