

## APPLICATION OF PHYTOCYLINDERS WITH LIPOPHILIC COMPLEX OF ROSA CANINA AND CHAMOMILE EXTRACT FOR TREATMENT OF CONSTIPATION IN PEDIATRIC SURGERY PRACTICE

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### Abstract

The relevance of constipation treatment in children is important. The search for effective treatment is necessary in medical practice.

The aim of our work was to analyze the results of treatment after the use of prophylactic phytocylinders with a lipophilic complex of rose canina and chamomile extract ("Zhytomyrbioproduct") in the form of suppositories in children with functional constipation.

We conducted a comprehensive analysis of the examination and treatment of 74 patients aged 6 months to 2 years over two years. Patients were divided into two groups. As a result of our study, patients in the group where phytocylinders were used showed faster improvement. On the third day of treatment, patients of this group showed improvement in general well-being - disappearance of pain and reduction of edema and discomfort in the anus, the appearance of the act of defecation. On the seventh day from the beginning of treatment, the disappearance of all complaints was noted. In the analysis of general treatment in combination with the use of phytocylinders prevention with lipophilic complex of rose canina and chamomile extract ("Zhytomyrbioproduct") in the complex treatment of children with constipation there was a more pronounced effect of therapy than on the background of the use of only basic therapy.

All human studies were conducted in compliance with the rules of the Helsinki Declaration of the World Medical Association "Ethical principles of medical research with human participation as an object of study". Informed consent was obtained from all participants.

**Keywords:** *rose canina, lipophilic complex, phytocylinders, chamomile extract, pathology of functional constipation*

## Introduction

In the last decade, the question of a steady increase in the incidence of constipation in patients of all ages has become increasingly important [1, 2]. Constipation is one of the most common gastrointestinal symptoms in children. Constipation is not a nosological form or symptom. This is a polyetiological, multifactorial symptom complex of general and gastrointestinal disorders [3, 4]. Many factors can cause functional constipation. One of these factors is poor nutrition, diet, lack of vitamins B. Also quite often constipation noted in infants who have just begun to introduce complementary foods. One of the current factors is the psychological factor - the lack of comfortable conditions for the toilet, such as kindergarten or school, fear of going to the toilet (associated with pain during defecation that may occur with cracks or other damage to the rectum), etc [5, 6, 7]. Due to any external causes, the regulation of intestinal function and slowing down the excretion of feces is disturbed [7]. Changes in the amount of thyroid hormones, parathyroid glands and adrenal glands, most diseases of the gastrointestinal tract can also provoke a malfunction of the digestive tract [8]. After long-term use of drugs, the side effects of which are constipation (antibiotics, nonsteroidal anti-inflammatory drugs, antispasmodics and diuretics) [9, 10, 11]. There are also experiments on the role of cow's milk allergy as a cause of chronic constipation. In 95% of children with the diagnosis of constipation, it is functional [12]. And only 5% of constipation is associated with organic causes - abnormalities in the development of the colon and rectum (Hirschsprung's disease, dolichosigma, anorectal malformation, and spina bifida) [13]. The main cause of constipation are the reasons that prevent the normal movement of intestinal contents in the presence of discrepancies between the volume of the colon and intestinal contents such as: disorder of motor activity of intestinal muscles, weakening of urges to defecate, changes in intestinal structure or nearby organs [14, 15].

For patients with severe impaction, rectal medications may be needed and are typically used in combination with oral medications. Rectal medications are more rapidly effective than oral

medications for disimpaction and may be a powerful motivator for toilet sitting [16, 17].

We are always looking for modern methods to improve the treatment of functional constipation, as this issue is not fully studied and relevant [18]. One of this was to study the effectiveness of prophylactic phytocylinders with lipophilic complex of rose canina and chamomile extract (research and production with limited liability company "Zhytomyrbioproduct") to increase the effectiveness of treatment functional constipation in children.

**The aim of work** was to analyze the results of treatment after the use of prophylactic phytocylinders with a lipophilic complex of rose canina and chamomile extract ("Zhytomyrbioproduct") in the form of suppositories in children with functional constipation

## Materials and methods

We conducted a comprehensive analysis of the examination and treatment of 74 patients aged 6 months to 2 years. The clinical study was conducted during 2020-2021 years on the basis of The non-profit municipal enterprise "Ternopil regional children's clinical hospital" of the Ternopil regional council, Ternopil, Ukraine. Patients were divided into two groups depending on the treatment methods. The first group included 31 children with constipation, who were treated in accordance with the clinical protocols of the Ministry of Health of Ukraine. The second group of children consisted of 43 children of the same age with constipation. Treatment was also carried out according to clinical protocols of the Ministry of Health of Ukraine, but to this group of children to treatment was added phytocylinders with lipophilic complex of rose canina and chamomile extract for 10 days daily in the form of suppositories 1-2 times a day. During the study, the parents of the children were informed and the informed voluntary consent of the children's parents was obtained.

When diagnosing constipation, we paid attention to skin color, tissue turgor, the condition of the tongue, the shape and size of the abdomen. Examination of the anorectal area is mandatory for children with constipation, as well as a rectal examination, which assesses the presence of feces

in the rectal ampoule, its diameter, the condition of the internal anal sphincter.

## Results

Therapy of functional constipation is a very difficult and important task, especially in young children and requires both diet and medical treatment. In breastfed babies, the diet of the nursing mother, which affects the composition of breast milk, is essential. As constipation in infants can be a manifestation of gastrointestinal food allergies, it is proposed to exclude from the diet of nursing mothers foods with high allergic potential, and especially cow's milk, fish, nuts, the consumption of which is the most common cause of food allergies in children of the first year of life.

One of the main directions of diet therapy of physiological constipation in children is the regulation of the consistency of intestinal contents and the speed of its transit through the colon. To do this, the diet includes foods that contain a significant amount of dietary fiber and increase the proportion of fiber. We used a lipophilic complex of rose canina and chamomile extract, which are part of the phytocylinders, in the form of suppositories. They have anti-inflammatory, antispasmodic, deodorizing, wound healing and antimicrobial effects. This remedy improves local blood flow in the anus, reduces the pressure in the anal canal and thus reduces pain and dilutes fecal masses. A general analysis of all follow-up examinations of patients for 10-12 days of treatment was performed.

In patients of the first group the condition returned to normal within 10 days. On the third day of treatment, 36 (83%) patients in the second group showed improvement in general well-being - disappearance of pain and reduction of edema and discomfort in the anus, the appearance of the act of defecation. On the 7-th day from the beginning of treatment, the disappearance of all complaints was noted. Patients in both groups showed stable normalization of the anal mucosa after the end of treatment, but recovery in patients of the second group was faster. They had a pronounced anti-inflammatory, anti-edematous, analgesic effect on the background of the use of lipophilic complex.

## Conclusions

In the analysis of general treatment in combination with the use of phytocylinders preventive with lipophilic complex of rose canina and chamomile extract (``Zhytomyrbioproduct``) in the form of suppositories in the complex treatment of children with constipation there was a more pronounced effect of therapy than on the background of the use of only basic therapy. This justifies their effectiveness and the possible need for their use in children with pathology of functional constipation. Thus, the problem of constipation in children of different ages remains relevant in pediatrics and pediatric surgery. It is complex, requires a careful, individual and comprehensive approach, close attention and control by medical staff and the attending physician, discipline on the part of the patient, and their close cooperation in achieving a positive and safe outcome for patients.

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The authors declare that there are no conflicts of interest.

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