

SYNTHETIC MEDICINES AND NATURAL MEDICINES USED IN THE TREATMENT OF CONSTIPATION

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Abstract: *This article provides information on the main causes of constipation, the chemical composition and structure of synthetic drugs used in modern medicine to treat it, and the effects of a new, natural food supplement developed by us called "Plantago juice".*

Key words: *constipation, lactulose, lactose, galactose, monosaccharide, poly alcohol, synthetic.*

Аннотация: *В данной статье представлена информация об основных причинах возникновения запоров, химическом составе и структуре синтетических препаратов, используемых в современной медицине для его лечения, а также о воздействии разработанной нами новой, натуральной пищевой добавки под названием «Сок подорожника».*

Ключевые слова: *запор, лактулоза, лактоза, галактоза, моносахарид, полиспирт, синтетический.*

The rapid urbanization of society (French: urbanisation, ing. Urbanization, lat. Urbanus - belonging to the city, urbs - city), along with many advantages, but it brought with its diseases of civilization, among which the diseases of the digestive system are more common. The number of patients suffering from diseases of the digestive system is tens of millions. One of the diseases that distinguishes among the various complaints that patients often consult a gastroenterologist is bowel movement disorders, in particular constipation. At present, the problem of chronic constipation is becoming increasingly relevant because of constant stress, the urbanization of our lives and the physical inactivity associated with it. In developed countries, constipation is present in up to 10 percent of adults and three times more common in women than in men. Chronic constipation is diagnosed in about 3 percent of the

young population, 8 percent of the middle-aged, and about 20 percent of the elderly. [1]

Constipation (Arabic - constipation, constriction) - prolonged (up to 2 days) diarrhea or difficulty coming; malnutrition, neuroregulatory disorders, intestinal diseases, etc. Constipation is a symptom of the disease, and sometimes it is independent disease. Constipation can sometimes occur when living conditions change, even when traveling. [2]

Different methods and tools are used in the treatment of constipation. The most widely used of these are lactase drugs: Lactulose and Macrogol. Drugs containing the active substance lactulose include «Дюфалак», Лаксалак», «Ливолюк», «Нормазе», «Порталак», «Ромфалак», «Прелакс», «Лактусан».

Lactulose - (4-O-beta-D-galactopyranosyl-D-fructose) is a disaccharide composed of galactose and fructose, is a synthetic isomer of lactose (milk sugar) and is not found in nature. Lactulose is derived from lactose. Lactulose is a white powdery substance that dissolves well in water. The drug may contain up to 16% galactose, 12% lactose, 8% epilactose and 1% fructose.

Due to the lack of an enzyme that breaks down lactulose in the human body, lactulose passes through the gastrointestinal tract and reaches the colon without being absorbed and unchanged. Only 0.25-2.0% of the drug is absorbed unchanged in the small intestine. This amount may be slightly higher in a number of pathological processes in the intestine - in Crohn's disease, as well as in the simultaneous use of hyperosmolar solutions. Lactulose, which arrives unchanged in the colon, is broken down into short-chain fatty acids (lactic, acetic, propionic, and fatty) during bacterial decomposition. It lowers the pH of the colon and increases peristalsis. At the same time, the osmotic pressure increases, these effects stimulate intestinal motility and soften the stool.

As this drug is a synthetic chemical drug, it has both beneficial and harmful effects. Lactulose can cause conditions such as flatulence, diarrhea, abdominal pain, electrolyte loss, abdominal cramps, abdominal rest. [3]

Galactose (Greek galact - "milk") - a simple sugar, a monosaccharide of the hexose group, an isomer of glucose. It differs from glucose in the spatial arrangement of the hydrogen and hydroxyl groups on the 4-carbon atom. It is present in animal and plant organisms, including some microorganisms. One of the main and important components included in the diet (food) of babies. Contains lactose and lactulose disaccharides. When oxidized, it forms galacturonic and mucous acids. L-galactose is a component of red algae polysaccharides. D-galactose is common in nature and is composed of oligosaccharides (melibiose, raffinose, stachiose), some glycosides, plant and bacterial polysaccharides (mucus, galactans, pectins, hemicelluloses). [4]

Sorbitol is a synthetic chemical drug that is a hydrogenated form of hydrogenated alcohol, with a sweet taste. Sorbitol has a high laxative effect and is used to treat constipation in the form of chocolate and sugar.

Sorbitol can be used orally as a laxative or as an enema. It acts as a laxative by attracting water to the colon and stimulating bowel movements.

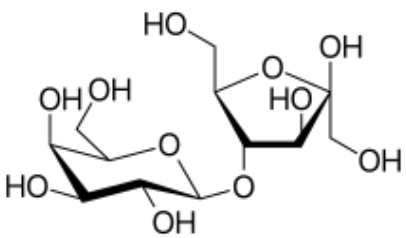
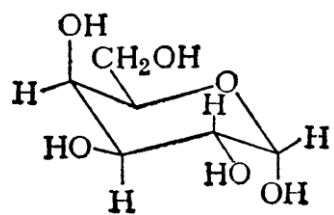
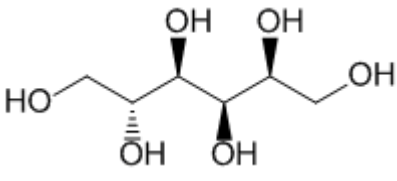
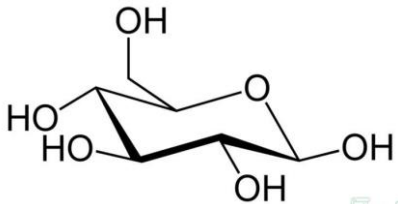
As sorbitol is a synthetic drug, weakness, nausea, dizziness, flatulence, diarrhea, hyperglycemia (in patients with decompensated diabetes mellitus), acidosis, electrolyte loss, severe diuresis, urinary retention, edema, dry mouth and thirst, dehydration, hypotension, hypotension, can cause adverse events such as blurred vision, vomiting, rhinitis, tremors, back pain, allergic reactions. [3]

Due to the fact that the drugs used in the treatment of constipation are synthetically derived and do not occur in living organisms and have a unique chemical structure, they have a negative effect on other organs of the body at the same time as the treatment of constipation. can give. One of the remedies with such healing properties is "Plantago m. juice", a natural nutritional supplement made from medicinal herbs. [5,6]

The following is a comparison of some synthetic drugs used in the treatment of constipation and the chemical composition of plantago juice (Table 1).

Table 1

№	Synthetic preparations	Ingredients in plantago juice
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1	Lac tulo se 	Galactose 
2	Sorbitol 	Glucose 

An analysis of the literature has shown that the chemical composition of the plant, which is common in nature, contains natural carbohydrates such as galactose and glucose. It was found that the composition of plantago juice is the same as the composition of synthetic drugs used to treat constipation. As can be seen from the table above, all synthetic and natural substances have a common polysyllabic property.

Therefore, it would be advisable to conduct more in-depth research on the use of Plantago m. Juice in the treatment of constipation.

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