Analyzing the above pharmacological effects of nettle grass, Baikal sagebrush roots and rhizomes with cyanosis roots, we considered it appropriate to obtain a complex herbal medicine with maximum sedative effect. The central plant object in this combination is the Baikal helmet. Nettle and cyanosis potentiate the sedative effect. Despite the effectiveness of drugs nettle and cyanosis blue sedative effect is slow, their pharmacological activity is cumulative, which requires long–term use.

Conclusions. Thus, the sedative collection includes types of medical plant material that show sedative and hypotensive effect. All components potentiate each other's action and have a sedative effect that exceeds the known drugs based on valerian. Therefore, the ratio of medicinal plant raw materials in the ratio of dog nettle grass: roots of Baikal hellebore: rhizomes with roots of cyanosis blue 1: 1: 1 was proposed.

STUDY OF THE TECHNOLOGICAL PROPERTIES OF THE COLLECTION FOR THE TREATMENT OF DISEASES OF THE GASTROINTESTINAL TRACT

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Introduction. Peptic ulcer and 12 duodenal ulcer is one of the most common diseases in the structure of gastroenterological pathology. Peptic ulcer occurs with frequent exacerbations and is characterized by a clear morphological feature – the loss of a portion of the mucous membrane with the formation of an ulcer in the gastroduodenal zone, washed by active gastric juice.

Aim. To study the effect of the degree of grinding of medicinal raw materials on the efficiency of the release of biologically active substances.

Materials and methods. The composition of the collection of antiulcer includes the types of medicinal products that contribute to the restoration of the affected gastric mucosa, cell regeneration, have an antispasmodic, secretolytic effect. As a basis (choleretic, antiulcer, hepatoprotective component) in the formulation, calendula flowers are proposed – 30 parts; to improve metabolism and as a vitamin component – sea buckthorn fruits – 10 parts; as an anti–inflammatory, wound healing – plantain leaves – 40 parts; antiulcer component – coriander fruits – 10 parts; antispasmodic component – marsh cinnamon herb – 10 parts.

Results and discussion. The completeness of extraction is influenced by a number of technological parameters of medicinal product, such as specific gravity, bulk density, bulk density, porosity and porosity of raw materials, free volume of the layer, angle of repose, coefficient of water absorption. Further research was aimed at determining these indicators.

The first stage of research was to study the degree of grinding of medicinal plant materials in order to determine the modes of technological processes. Intensification of the process of extraction of biologically active substances directly depends on the degree of grinding of medicinal plant raw materials. An important stage in the development of a herbal medicine is the grinding of raw materials with damage to the structure and an increase in surface area for extraction efficiency. As a result of grinding the raw material, parts of the cells open and during extraction the content is washed out by the extractant. With the help of a rotary knife mill RM–250, uniformity of particles was achieved.

Sieve analysis is a quantitative characteristic of the fractional composition of a mixture of crushed medicinal plant materials.

Its characteristic parameter is the weighted average particle size. The results of studies of the fractional composition of the mixture of crushed medicinal plant raw materials and collection are given in Table 1.

Table 1

Fractional analysis of medicinal plants (n = 5, P = 95%)

Plant	Sieve diameter, mm / Amount of raw materials passed through the sieve, %								
	10	5	4,5	3,25	2,0	1,4	1,0	0,5	Pallet (dust)
Calendula officinalis flowers	0,4	8,76	7,6	31,5	17,9	16,8	9,88	3,7	3,46
Plantain large leaves	0,1	1,4	2,1	28,7	34,5	18,4	7,7	1,9	5,2
Sea buckthorn fruit	0,1	2,5	12,6	39,5	12,9	18,2	20,9	8,54	3,99
Coriander seed fruit	0,2	2,7	5,2	9,6	33,5	27,5	10,36	7,6	3,34
Marsh grass	0,3	7,76	6,9	21,5	27,9	19,9	9,88	3,7	2,16

Conclusions. Fractional analysis showed that about 65% of the collection fraction passes through sieves with a pore diameter of 2.0 to 0.5 mm, which meets the requirements of the State Pharmacopoeia. Sieve analysis data indicate the need for additional grinding and sieving of plant components that make up the developed collection.

USING SAUSSUREA LAPPA FOR CREATE MEDICINES

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Introduction. The object of study in this work was the Kyst al-Hindi plant, which is widespread in the eastern countries, or Costus (the latin name is Saussurea Lappa or Saussurea Costus). It belongs to the family Costaceae (Latin Costaceae), genus – Saussurea. It is believed that the root of the plant has medicinal properties. Costus root (Aucklandiae radix, Saussureae radix) contains essential oils, which have been used in medicine and cosmetology since ancient times. In addition to the root the Indians collected the bark of the plant for medicinal purposes and used it to treat many diseases.

Herbalists consider it a bush and a tree at the same time. In India, for the property of the plant to give the skin smoothness and shine, as well as for the pleasant aroma of flowers and roots, the plant is called «prakasini» or «surabhi». In Greece, the plant is called «Costus», which in translation means «хинди arrived from the East». The ending «Hindi» means that the plant is native to India.

The composition of biologically active substances Saussurea Lappa is not well studied. According to literary sources, the plant contains organic acids, sesquiterpene lactones, steroid saponins, tannins, essential oil, vitamins and other active compounds, which determine its pharmacological action. In Ayurvedic, Chinese and Arabic medicine, kyst is used to treat more than 100 diseases.

Considering the wide range of pharmacological action of medicines, which are obtained from the plant, their effectiveness and safety, as well as the limited assortment on the