

at a dose of 80 mg/kg. All animals were on a standard diet. The duration of the experiment was 28 days. Histological preparations were made from pancreas according to the standard method.

A decrease in the number of CT was found in the pancreas of rats treated with L-tryptophan. This was evidenced by a probably smaller relative area of CT by 38% and a smaller stromal-parenchymal index by 42% compared to the control. The width of interlobular and interacinus CT layers in experimental animals was probably smaller by 33 and 12%, respectively, compared to controls. The stroma is the most important component of the histo-hematic barrier, and reducing its number and layer thickness improves the transport of oxygen to the parenchymal elements of the gland, improves the conditions for metabolic processes, and increases the penetration of hormones into the blood.

That is, L-tryptophan and preparations based on it can be used in the prevention and correction of existing fibrotic changes in the pancreas tissue.

### **Research of pharmaco-technological properties of cranberry dry extract**

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Cystitis is an acute or chronic inflammatory process in the bladder mucosa. Sometimes the entire wall of the bladder is involved in the pathological process. The most common treatment for cystitis is antibiotic therapy. But an alternative method of treating cystitis is phytotherapy, since medicinal plants have a complex effect on the main mechanisms for the development of cystitis. They demonstrate good clinical efficacy, can be prescribed in the complex therapy of acute cystitis or to prevent relapses.

Therefore, it was decided to develop hard capsules for the treatment of cystitis based on components of plant origin, namely with dry cranberry extract.

At the first stage of developing the composition of hard capsules, the properties of the initial medicinal substances are studied, which determine the rational method of technology and the choice of the range and quantity of excipients. The pharmacotechnological properties of cranberry dry extract were studied. An analysis of the pharmacotechnological properties of the studied dry extract showed that the cranberry dry extract has unsatisfactory fluidity. The calculated Gausner coefficient is 1.38 and the Carr coefficient is 27. Bulk density and density after shrinkage have a significant difference in values, which indicates the ability to clumping, which is undesirable in the technological process, since it can lead to inhomogeneous dosage of the active pharmaceutical ingredient. Microscopic examination of dry cranberry extract showed that it is a polydisperse powder with particles of irregular anisodiametric shape in the form of spheres, prisms and their fragments. The main fraction is from 10 to 110 microns.

The conducted studies on the study of crystallographic, pharmacotechnological properties of dry cranberry extract indicate that the studied substance is a polydisperse system with anisodiametric particles, which unsatisfactorily affects flowability and makes it possible to predict the introduction of excipients from the group of fillers and lubricants when developing a solid dosage form in the form of capsules.

### **The relevance of the development of herbal collection of antidepressant action**

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According to the WHO, as well as based on the publications presented on the website of the electronic database of medical and biological publications «PubMed», there is an increase in the prevalence of diseases of the population suffering from mental disorders of various degrees. Medicines of various pharmacological groups are currently used to correct depressive disorders. Among such drugs, benzodiazepines,