USE OF CRIOMILLED PLANT POWDERS IN THE TECHNOLOGY OF GEPATOPROTECTIVE DRUGS

S. Korkosh, V. Chueshov, D. Soldatov

The National University of Pharmacy, Kharkiv, Ukraine

soldatovdp@gmail.com

Pathologies of liver occupy a leading place among illnesses of digestion organs. From data of World Health Organization in the world - over 2 billion of people have pathology of liver, that in 100 times exceeds prevalence of human immunodeficiency virus.

In Ukraine for the last 10 years prevalence of diseases of liver has been increased on 20,1%.

Phytotherapy has substantial role in the prophylaxis of intensifying liver diseases and prevention of acute process transition to chronic.

Herbs increase biliary excretion, have spasmolytic, antiallergic, antiinflammatory action, promote normalizations of gall-bladder tone.

Possibility to utilize native raw material without the sequential process of extraction comes into the notice of researchers in the last years. Criopowders have become this product, which keep all of the active substances from destroying during milling.

Criopowder is a product, got on criogenic technology, that uses deep-freezing (-180 C) on one or a few stages of production.

In recent work criopowders of Fumaria grass, Calendula flowers, Taraxacum roots, Agrimonia grass, Menyanthes grass, Mentha leaves have been studied.

It has been determined that criopowders had bad flowability, low compressibility. For including of this criopowders in the complement of pills it is necessary to use high-efficiency binder agent. Fluidity can be improved due to wet granulation. As a result of determination of fluidity of these samples, hardness and friability of model pills the use of wet granulation has been grounded.

For the increase of pills hardness, disintegration and friability improvement 5% polyvinylpyrrolidone water solution has been selected for wet granulation. As lubricant 1% of calcium stearate has been used.

Pills correspond to requirements of Ukrainian state pharmacopeia by hardness-53±0,4 N, disintegration – 3,26±0,02 min, friability – 0,81±0,04 %.