DEVELOPMENT OF GRANULES WITH NATURAL ZEOLITE AND EXTRACT OF CHAMOMILE

Noskova Y. O., Rybachuk V. D.
National University of Pharmacy, Kharkiv, Ukraine
noskova.yulya@bk.ru

Introduction. Today, one of the most actual problems of modern medicine is increasing of quantity of digestive system diseases, among which the first place is occupied by gastritis. Gastritis belongi to a "diseases of civilization" group and their wide prevalence can be explained by increasing of urbanization, unhealthy diet, harmful habits, by the decreasing in the share of physical labor in modern life, by the influence of adverse social factors and by numerous stressful situations. In the course of treatment, anti-inflammatory drugs are being used for a long time, and it is often the cause of side effects. That is why the development of natural medicines (herbal anti-inflammatory drugs), which allow to treat the patient for long courses with minimal risk, is still topical.

Among the plants that have anti-inflammatory effect, special attention should be paid to chamomile, extracts from which flowers are widely used in folk and officinal medicine. Hamazulene is the main active ingredient of chamomile extract. It has antispasmodic, anti-inflammatory, choleretic, antiseptic action; reduces the incidence of allergies, improves regeneration processes, increases the secretory activity of digestive glands, improves appetite and more.

The second component, which we believe to be included in a composition with chamomile extract, is natural zeolite.

Aim. The aim of our study is the development of composition and technology of combined granules, based on powder of natural zeolite and liquid extract of chamomile flowers.

Materials and methods. We used methods of pharmacopoeia for determination of the technological properties of experimental compositions.

Results and discussion. We experimentally selected the optimum ratio of the components. It is the ratio of natural zeolite and extract of chamomile about 1.0 to 0.5. As a binder, starch paste 7% has been chosen, which is allowing getting granules of high quality. The basic technological properties of granules were studied (flowability – 6.5 g/sec; bulk density – 1.3 g/cm$^{3)}$, and also the technology of wet granulation was developed.

Conclusions. In conclusion of our work, it is should be noted, that the natural zeolite is optimal filler for getting granules containing liquid extracts. All technological qualities of the resulting composition meet national pharmacopoeia requirements.