

Relevance of development of a syrup containing Viola herb

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Introduction. Of several thousand plants with established types of pharmacological activity, only approximately 200 are approved for medical use in Ukraine. Among them, there are types of medicinal plant raw materials which used only in the form of aqueous extracts like infusions and decoctions.

This approach in relation to plant raw materials does not correspond to the modern requirement for its rational use through obtaining several herbal drugs under conditions of low- or waste-free production. These medicinal plants include two types of violas – tricolor and field, the aerial part of which is used so far only in the form of an extract of expectorant action.

Purpose of the research. To prove the relevance of the development of a syrup containing biologically active substances from field viola.

Materials and methods. Search for scientific information and its analysis regarding the use of field viola herb in pharmacy and medicine.

Obtained results. The scope and quality of both types of medicinal plant materials are regulated by the State Pharmacopoeia of Ukraine, in which the main standardized indicator of the quality of raw materials is the content of two hydrophilic groups of biologically active substances – polysaccharides and flavonoids.

At the same time, much less attention from researchers is paid to the pharmacognostic and technological study of the field viola, in comparison with the tricolor one. Meanwhile, the field viola herb has a significant raw material base and could become an object of low-waste processing to obtain several medicines based on its biologically active substances.

Simultaneously with the consideration of the issue of a more complete processing of the field viola herb in industrial conditions, it seems expedient, considering the pharmacological properties of this raw material, to create expectorants for pediatric practice. The assortment of this category of domestically produced drugs is extremely limited.

Field viola herb with a time-tested sufficiently high degree of safety of use for a child's body is a quite suitable object of research in this aspect as well. At the same time, for children, the most preferred form of oral administration of drugs is a syrup, in which it is possible to balance the necessary pharmacokinetic and organoleptic properties.

Conclusions. Thus, it seems relevant to research on the technological study of the field viola herb, obtaining from it in low-waste production conditions effective, convenient for use and standardized in quality medicines.

References

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Analysis of vascular permeability of the anorectal area of experimental animals during treatment with suppositories with diosmin and hesperidin

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Introduction. One of the important stages of pharmaceutical development of drugs is the confirmation of their pharmacological activity in the model of experimental pathology. Thus, in the development of rectal suppositories for the treatment of diseases of the anorectal area with the help of croton oil, the conditions of the acute pathological process of hemorrhoids are modeled. In such conditions, it is possible to test an important provocative factor for hemorrhoids - the permeability of the vascular wall.

Purpose of the research. The aim of this study is to conduct a pharmacological analysis of vascular permeability of the anorectal area in the therapeutic use of rectal suppositories with diosmin and hesperidin.

Materials and methods. The studies were performed with 48 outbred male rats (aged 3 months). Experimental animals were kept in a vivarium at the Educational and Scientific Institute of Applied Pharmacy of the National University of Pharmacy in accordance with sanitary and hygienic standards in the conditions recommended for this species of animals. The animals were housed in separate polypropylene cages in a room with natural light regime "day and night" at a temperature of 19-24 °C and a humidity of 50-60%. The animals had free access to water and food, were on a standard diet for this species.

Randomization by experimental groups was performed through minimizing the difference in animal weight. Experimental animals were divided into 6 experimental groups of 8 animals each: 1) Intact control; 2) Control pathology (modeling of experimental hemorrhoids); 3) Control pathology + sample of suppositories (daily dose of 50 mg/kg of animal weight); 4) Control pathology + sample of