

CREATION OF SUPPOSITORIES FOR CHILDREN BASED ON THE PLANT COMPONENTS

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Over the past few years, there has been a tendency to constant increase of the number of children with various pathologies, including viral origin. In modern pediatric practice among various medicinal forms the greatest interest have suppositories and, accordingly, rectal route of administration of medicines, which has a number of advantages.

Medicines in suppository form quickly show the main pharmacological effect, eliminate irritation of stomach and duodenal ulcers, and prevent inactivation of the medicine in the liver and gastrointestinal tract. In addition, this medicinal form is one of the safest in pediatric practice.

A right combination of medicinal substances, primarily of natural origin can effectively achieve the desired antiviral activity. From this point of view, the most promising is the following plant raw material: licorice roots, essential oils of chamomile and tea tree.

For preparation suppositories, we used thick licorice extract, essential oils of chamomile and tea tree, which can inhibit the development of a variety of microorganisms, effectively restoring the natural immunity. As a suppository base for children's rectal suppositories, we used hard fat (type A).

Suppositories were prepared using replacement coefficient of thick licorice extract, physical and chemical properties of the main components and excipients by the method of pouring.

In order to establish the optimal concentration of thick licorice extract in the suppositories researches on the antiviral activity of glycyrrhizin acid in the State Institution "Institute of Microbiology and Immunology named by Mechnikov of National Academy of Sciences of Ukraine" were conducted.

The concentration of essential oils of chamomile and tea tree in suppositories justified based on microbiological studies. Study of antibacterial activity of model samples was carried out in experiments in vitro using agar diffusion.

Thus, based on the studies we have justified the concentration of active ingredients in suppositories for children based on the plant components: thick licorice extract - 21.7 %, essential oil of chamomile - 0.875 % and essential oils of tea tree - 0.875 %.