

DEVELOPMENT OF DENTAL GEL'S TECHNOLOGY FOR THE TREATMENT OF BABY VIRAL STOMATITIS

Cheban Yu. G.

Scientific supervisor: associate prof. Rukhmakova O. A.

National University of Pharmacy, Kharkiv, Ukraine

rukhmakovaolga@gmail.com

Introduction. To date, in the clinic of therapeutic dentistry it is difficult to find pathology of the oral mucosa, which is similar to acute stomatitis, demands so much attention and wide study. The prevalence of acute stomatitis in children aged from 1 to 4 years is up to 80 % of all cases.

In the pharmaceutical market of Ukraine, the bulk of medicines for the treatment of viral stomatitis are represented by liquid dosage forms. The use of these medicines should be at least 5-6 times a day, which adversely affect patients' compliance. Also listed solutions are alcoholic that often cause locally irritant action. It is therefore soft medicinal forms - dental gels are preferred. However, it should be noted that today range of extemporaneous dental gels is virtually absent.

The aim of our work was to develop extemporaneous dental gel for local treatment of baby viral stomatitis based on natural raw materials.

Materials and methods. After examining the pharmacological properties of medicinal plants used for the treatment of stomatitis, as active ingredients for extemporaneous dental gel for the treatment of this disease, we have chosen dry extract of licorice root and essential oils of sage and peppermint.

In order to choose structural component of gel bases, we investigated the possibility of using as gelling agent Carbopol 934 P, methyl cellulose and sodium alginate.

Considering all experimental data, physical and chemical properties of active substances, namely their solubility (dry extract of licorice root injected into the gel in an aqueous solution and essential oils of sage and peppermint as a solution in ethanol (96 %)), we have conducted research on the development of rational technology of extemporaneous dental gel.

Results and discussion. The gel obtained by the developed technology has gel-like uniform consistency with a specific pleasant smell, brown color, pH 7.2-7.4. Study of colloidal and thermal stability proved the stability of proposed system.

Also, we conducted study of developed medicine's stability during storage. Designed dental gel retains its properties during 5 months at two storage temperatures.

Conclusions. Thus, on the basis of the research we have developed technology of extemporaneous dental gel for the treatment of baby viral stomatitis.