THE CHOICE OF ACTIVE SUBSTANCES FOR DEVELOPMENT OF COMBINED PESSARIES FOR GENITAL HERPES THERAPY

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Introduction: Recently, in connection with the increase of the number of diseases of genital herpes (GH), there is a need to create new combined drugs for local treatment of GH.

The aim of the study is to select the composition and the optimal ratio of the active substances to create and obtain combined pessaries for GH therapy, due to its different mechanisms of action.

Materials and methods: To develop the composition, physical, chemical and technological methods were used during the research, as well as mathematical methods of statistical processing to evaluate and analyze the data.

One of the most widely recognized active substances for the treatment of the herpes virus is acyclovir. Drugs based on acyclovir or its derivatives occupy a leading place due to its studied pharmacological action in the pharmaceuticalmarket and in clinical practice. Therefore, in experimental studies we used acyclovir substance as an active pharmaceutical ingredient (API) for pessaries, which completely meets the regulatory requirements of SPhU 2.0. Recently, various essential oils are widely usedin developing of various combined dosage forms.

The combination in one dosage form both substance of synthetic origin and essential oils gives the following advantages: the possibility of reducing the dose of each of the ingredients in comparing to their standard dosage within the monotherapy to achieve an equivalent effect (increasing the safety of treatment); the possibility of expanding the therapeutic spectrum and indications for use in comparison with monotherapy.

During the development, we chose the most optimal concentrations of essential oils of tea tree and thyme, which have antiviral, anti-inflammatory, immunomodulating action, and show the most pronounced activity with GH. Optimum basis in connection with the biomedical indicators of this disease for the developed drug form was selected Witepsol. The conducted studies on antiherpetic activity prove that the developed pessaries effectively inhibit the reproduction of the second type of herpes virus. Additional studies have shown that essential oils in pessaries contain antibacterial action of a wide spectrum.

Conclusion: Based on the studies carried out, a compound for combined pessaries for the treatment of genital herpes was developed.