

THE DEVELOPMENT OF VAGINAL GEL

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Introduction. Menopause in a woman's life is an actual problem of medicine and pharmacy due to a large proportion of its impact on overall health. After the menopause malfunctions of many systems appear in woman's body. First of all there is a deterioration in functioning of the reproductive system accompanied by many unpleasant symptoms such as significant acceleration of inflammatory diseases of the genital organs, painful urination, itching and vaginal dryness, itching vulva.

Aim. Thereby the aim of our work is the development of composition and technology of a drug in the form of emulgel with an extract of broccoli which is widely used in the treatment of menopausal symptom disorders.

Materials and methods. The composition of the gel with the extract of broccoli has been compounded by hyaluronic acid and vitamin E. The main active ingredient is an extract of broccoli indole-3-kabinol which has anti-inflammatory, regenerating activity, and prevents the development of proliferative processes. Hyaluronic acid and Vitamin E in menopause when applied locally have a protective, regenerating, and hydrating effect on the mucous membranes of the female genital organs preventing the appearance of atrophic changes which may appear due to insufficient quantity of estrogen in the body. The organoleptic, physical and physical-chemical analysis of the three samples of the gel has been carried out, the most optimal excipients have been chosen. Since broccoli extract and hyaluronic acid are water-soluble active ingredients and vitamin E is fatsoluble the dosage form of emulgel has been selected for optimal release of the substances.

Results and discussion. In the course of the research excipients composition of vaginal gel has been explained. Sepimax which has surface-active properties and allows you to introduce into the dosage form both hydrophilic and hydrophobic substances has been chosen to form the gel. To prevent microbial contamination of the drug preservative Suttocide has been introduced. An extemporaneous and industrial technologies of emulgel obtaining have been proposed. They consist of the following stages: dissolution of broccoli extract and hyaluronic acid in water, preparation of oil solution of vitamin E, dissolution of gel forming substance in water, emulsification, addition of the antimicrobial preservative.

Conclusions. According to the research the composition and technology for the treatment of menopausal symptoms with the help of vaginal emugel have been corroborated.