and also to increase the stability of the granules and improve the organoleptic characteristics, fillers (sucrose or lactose) were added to their composition. To correct the organoleptic characteristics of beverages, sweeteners, flavorings and colorants are included in the composition. Flavorings and colorants were selected in accordance with the flavor (for example, sunset - orange, acid red - raspberry, etc.).

Results and discussion. The estimation of technological and physicochemical parameters of the obtained granules and, accordingly, the selection of excipients was carried out on the basis of the determinations of the mass loss rate due to the release of carbon dioxide, the dissolution time of the granules, the gassing and gas saturation factors, pH, and the quality of the granule solutions (appearance, transparency) and their organoleptic properties.

At the same time, the following compositions of effervescent drinks possessed optimal technological characteristics and organoleptic properties. Since granules had a short shelf life (no more than 6 months) and taken into account the complexity in the manufacture (double-flow granulation) was investigated the possibility of obtaining effervescent tablets.

Two variants of the technology were investigated: using separate granulation (as in the preparation of granules) and a combined process. The evaluation of the obtained tablets was carried out according to moisture resistance, gas-forming ability, expulsion pressure (Рв МН / м2) and time of their dissolution (τ, min.). It was found that both methods provide the values of the generalized criterion within the limits of the optimum (0.1-0.2).

Conclusion. The technology, quality standards of dry granulated and tableted effervescent drinks with extracts of Eleutherococcus, Rhodiola rosea, tincture of ginseng and vitamins, presented in the form of dietary supplements to food. It is shown that the optimal technology of the main stage of production of dry effervescent drinks is the separate granulation of carbonate and acid components.

THE RESEARCH OF EXTRICATION RESVERTROL BY AN EQUILIBRIUM DIALESIS IN THE COMPOSITION OF THE VAGINAL GEL

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Introduction. The development of vaginal dosage forms for the treatment of urogenital symptoms during the period of climax, pregnancy and various inflammatory diseases is relevant at present. The bioavailability of the active substance is an important parameter in the development of the drug. Bioavailability indicates the amount of active substance that reaches to the site of action. It is necessary to conduct studies on the bioavailability of the active substance in the formulation of the drug in the form of a vaginal gel. The active substance in the composition is resveratrol, which has an estrogen-like action.

Aim. The aim of study was to investigate the release of resveratrol in the composition of the gel with the addition of a surfactant in various concentrations.

Materials and methods. The studies were conducted using equilibrium dialysis through a semipermeable membrane. According to preliminary studies, as a surfactant, we selected tween-80 in the amount of 1%, 3% and 5%. To conduct research to the bottom hole of the inner cylinder, a semipermeable membrane was sealed hermetically. On the surface of the membrane, the test gel sample was applied evenly. The amount of gel was 10.00 g. The dialysis chamber was filled with a phosphate buffer solution of 47 ml. The pH of the phosphate buffer solution was 4,5. The internal cylinder with a gel sample was placed in a dialysis chamber until a semi-permeable membrane with a solution was contacted. Every 60 minutes, 5 ml samples were taken. After sampling, the volume of the buffer solution in the dialysis chamber was brought to a level. The studies were carried out in the thermostat TS-80M-2 with a temperature of 37.0 ± 1.0 °C, which simulates to the temperature of the vagina. The research was conducted for 6 hours. The optical density of the samples obtained was determined using a spectrophotometer at a wavelength of 270 nm in a cuvette with a layer thickness of 1 cm. The concentration of the samples obtained (g / ml) was determined by calibration graph or calculated using the data of optical densities of standard solutions.

Results and discussion. The concentration of resveratrol in the solution in a sample with a concentration of tween-80 1% after 6 hours was 5.54 g/ml 10^{-5}, in a sample with a concentration of tween-80 3% - 2.90 g/ml 10^{-5} and in a sample with a concentration of tween-80 5% - 11.85 g/ml 10^{-5}.

The results of the experiment showed that the best bioavailability was in the sample with a concentration of tween - 80 5%. The smallest release figure was in sample with a surface-active substance with concentration of 3%.

Conclusions. It is expediently to administer tween - 80 at a concentration of 5% to the vaginal gel, which provides the most complete release of resveratrol.

PROSPECTS OF SEMISOLID DRUGS DEVELOPMENT FOR TREATMENT OF GINECOLOGICAL DISEASES

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Introduction. Improvement of medical care for women with urogenital infections is one of the important medical problems, the relevance of which is due to the high level and constant increase in morbidity, the chronic course of the infectious process and the lack of effective therapy. Infections of the vagina are the most common pathology in obstetric and gynecological practice. Despite the apparent progress of antibiotic therapy, it is still not possible to reduce the incidence of these infections.

Bacterial vaginosis is the most common cause of pathological vaginal discharge in women of childbearing age and is considered as vaginal dysbiosis, with increased growth of predominantly obligate anaerobic bacteria and a sharp decrease in the concentration of lactobacilli.

The leading role in the treatment of bacterial vaginosis is given by antibiotics and antiseptics. However, antibacterial drugs, along with the anti-inflammatory effect, cause pronounced dysbiotic disorders in numerous ecological niches, suppress general and local immunity, which enhances dysbiosis and creates favorable conditions for the development of recurrent forms of the disease: In this regard, great practical and scientific interest is the search for new correction methods of dysbiotic changes that would provide reasonable limitation of antibacterial load, would provide artificial physical and chemical detoxification of the body.

A rational dosage form for vaginal use is gels, positive properties of which include technological, economic, consumer, pharmacological and biopharmaceutical benefits. Gels are characterized by high viscosity at low concentrations (less than 1%), significantly emulsifies and suspends the ability, providing high bioavailability and prolonging the effect, significant bioadhesion, lack of irritating properties, microbiological stability, ease of use, compatibility with many groups of medicinal substances, etc. Thus development of the composition and technology of new drugs in form of gel with sorption properties for the treatment of vaginal diseases is promising and urgent task of modern pharmacy.

Aim. The purpose of this study was the theoretical substantiation and experimental development of the composition and technology of vaginal gel with sorption properties.

Materials and methods. Taking into account the need for a rational choice of excipients and technological methods that ensure the effective action of the active substances introduced into the medicinal product, it is advisable to study various gelling agents. The presence of such an important clinical symptom of BV, as abundant vaginal isolation, allows us to conclude that it is expedient to use hydrophilic bases possessing high osmotic properties. For conducting studies of the optimal composition of gels, commonly used concentrations of gel formers were chosen. Based on literary data, the concentration of sorbents was 10 % for all samples.

Results and discussion. On the basis of the study, were constructed a raw of advantages of sorbents (in terms of dry matter) according to the adsorption properties: Enterosgel> Aerosil> Polysorb> microcrystalline cellulose. Thus, enterosgel has the highest adsorption capacity.

The greatest adsorption activity have gel Carbopol and CSMA. Gels based on MC have the lowest adsorption capacity.