Materials and methods. As active pharmaceutical ingredients used dry extract of ruscus, dry horse chestnut extract, shark liver oil; excipients – solid fat (Witepsol H15), macrogols 400 and 1500, propylene glycol, glycerin, polysorbate 20, polyoxyl 40 hydrogenated castor oil, nipagin, nipazol.

When performing experimental studies, the following methods were used: organoleptic (description, uniformity, etc.), physico-chemical (solubility study of dry extracts, pH, identification of biologically active substances), pharmaco-technological (melting and hardening temperature, decomposition time) rheological (structural viscosity, type of flow) and biopharmaceutical (the dynamics of biologically active substances release, the study of dehydrating activity).

Results and discussion. The possibility of introducing dry extracts of ruscus and horse chestnut into the suppository base in a dissolved state was studied. Due to the significant amount of dry extract solution introduced into the suppository base, the suppositories did not possess sufficient hardness and had a soft, greasy consistency. When dry extracts were introduced into a suppository base as a suspension, the suppositories retained their shape when removed from the PVC film cell. The quality of suppositories was assessed according to the requirements of SPU in terms of: melting point, solidification temperature, disintegration, pH and homogeneity. As a result of biopharmaceutical studies, the use of solid fat (Witepsol H15) as a suppository base has been justified.

A critical parameter in the technology of manufacturing suppositories with dry extracts of ruscus and chestnut, administered by the type of suspension is the temperature of preparation, transportation and pouring. The temperature factor has a significant effect on suppository uniformity. To substantiate the temperature parameters of the technological process of suppositories manufacturing the, rheological studies were performed, which make it possible to estimate the change in the suppository mass flow from temperature.

Methods for the identification of BAS have been developed. The presence of saponins of the steroid structure and substances of the flavonoid structure is characteristic of the ruscus. In turn, chestnut seeds contain triterpene saponins and polyphenolic substances.

Conclusions. A complex of physicochemical, pharmaco-technological, rheological and biopharmaceutical studies on the development of the composition and technology of suppositories has been carried out

DEVELOPMENT OF COMPOSITION OF EXTEMPORAL PHYTOOINTMENT FOR THE TREATMENT OF RHINITIS

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Introduction. The high incidence of ARVI is due to the diversity of etiological factors. More than 200 strains of viruses of the causative agents of influenza and ARVI are known: adenoviruses, rhinoviruses, reoviruses, PC-viruses, etc. At the same time, there is a high variability of viruses and their tropism to the affected areas of the respiratory tract: rhinoviruses, of which about 100 strains, are the most common cause of acute infectious rhinitis.

The most important factor in the pathogenesis of acute respiratory viral infections is the violation of non-specific mechanisms of the protective function of the respiratory epithelium. The first link is the settling of viruses on the surface of the nasal mucus covering the epithelium. In case of insufficiency of the protective function of the nasal mucosa (lysozyme, mucin, lactoferrin, mucociliary clearance), cellular and humoral factors of immune regulation, virus fixation and invasion into the cell takes place, replication of the infectious agent and cell death of the ciliated epithelium start. The answer to the damage is a diffuse lesion of all parts of the nasal cavity with the development of all the classic symptoms of the inflammatory reaction: vascular vasodilation with a sharp swelling of the mucous membrane, severe exudation, stopping the mucociliary escalator, stasis of mucus with flooding and a sharp narrowing of the nasal passages, disruption of all functions of the nasal cavity. For the treatment of rhinitis when colds, decongestants are used – they are agents that constrict blood vessels and reduce swelling of the nasal mucosa, resulting in improved nasal breathing and a runny nose.

It should be noted that antimicrobials play an important role in the treatment of rhinitis, since bacterial infections very often join in the phase of transition of rhinitis to the chronic form.

Aim. The aim of our work was the development of the composition of phytoointment for the treatment of rhinitis based on the extract of celandine – an antimicrobial agent and peppermint oil, a component that has an antiseptic and deodorizing effect.

Materials and methods. Using biopharmaceutical, microbiological and technological research methods, experimental ointment samples were studied. The degree of release of active substances was studied by the method of «diffusion into agar». The obtained data were confirmed with the help of microbiological studies, by comparing the level of antimicrobial activity of the drug in relation to rhinitis pathogens.

Results and discussion. The results of a comparative analysis of the degree of release of the active substances and the correlating data from the study of the antimicrobial activity of the experimental samples made it possible to determine the concentrations of the active and auxiliary substances in the composition of phytoointment.

Conclusions. The etiological factors and the clinical picture of rhinitis were analyzed. The chemical composition and pharmacological properties of biologically active substances of celandine and peppermint oil were investigated. Based on the conducted research the composition of extemporal ointment for the treatment of rhinitis was developed.

APPLICATION CORIANDRUM SATIVUM FOR HOMEOPATHIC MEDICINES PREPARATION

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Introduction. The Department of Pharmaceutical Technology of Drugs of NUPh closely cooperates with production pharmacies, including homeopathic ones. The department assists them in the development of regulatory documentation for the preparation and standardization of drugs in pharmaceutical conditions.

In their work, pharmacies and small enterprises of the homeopathic profile use raw materials of natural origin in the production of homeopathic drugs, as the raw material base for their manufacture, as a rule, is not limited. However, homeopathic pharmacies also encounter certain difficulties that are associated with the presence of a regulatory framework for the manufacture of medicines and their standardization.

Aim. The purpose of this work was to study the possibilities of using coriander in homeopathy, as well as the development of the composition and technology of homeopathic medicines based on it.

Materials and methods. The object of research in this work is coriander seed, an annual herb more commonly known as cilantro. In the course of the work the librarian, analytical, modern physicochemical, and pharmaco-technological methods of analysis were used, and the results were statistically processed.

Results and discussion. Analysis of domestic and foreign literature showed that coriander seed is used in traditional and folk medicine. The essential oil is obtained from the fruits of the plant. Coriander is part of soothing, anti-inflammatory and choleretic species. Dry extract, which is used as a sedative and antihypertensive drugs, is obtained from the herb of coriander. Infusions and decoctions for internal and external use are also made from this plant. In the scientific literature the information on the use of coriander for the preparation of homeopathic medicines is very small. We have developed the composition and technology of matrix tincture based on coriander seed. Preparation of tinctures was based on maceration method, which is most appropriate for obtaining basic drugs in homeopathic pharmacies, in addition, this method is pharmacopoeial. Based on the matrix tincture various dilutions were made. Physicochemical studies of the obtained drugs are currently underway.

Conclusions: The data of literary sources on the use of coriander in traditional and folk medicine are studied and summarized. On the basis of the plant the composition and technology of basic homeopathic tincture, from which various dilutions are made, was developed. At this stage, the development of methods for their standardization is performed.