

ANALYSIS OF THE MARKET OF COSMETIC PREPARATIONS IN UKRAINE, WHICH CONTAIN ALOE ARBORESCENS IN COMPOSITION

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Introduction. The search for effective drugs based on natural biologically active substances (BAS) is one of the most important tasks of the medical and pharmaceutical sciences. A small spectrum of side effects and low toxicity are especially convincing in favor of the latter, which distinguishes them favorably from preparations of microbial and chemical synthesis. It is not by chance that currently medicinal substances of natural origin, especially of vegetable origin, make up about 30% of all the drugs used in modern medicine. In accordance with the literature data, native Aloe extract (liquid, thick, dry) is used, as well as juice, which is obtained by squeezing Aloe leaves. Given the fact that Ukraine did not carry out comprehensive work to determine the chemical composition and properties of Aloe arborescens and there are no funds based on it, the development of the composition. The rich chemical composition of aloe leaves allows you to successfully use them in cosmetology.

Aim. Conduct the marketing analysis of the pharmaceutical market of cosmetic products, which include Aloe arborescens derivatives for further research on the feasibility of creating cosmetics based on Aloe.

Materials and methods. Research shows that in addition to cost, the natural factor of cosmetics is an important factor for Ukrainian consumers. The demand for cosmetics based on natural ingredients is growing every day. More and more consumers want to use quality products, which include natural ingredients and no synthetic substances.

Results and discussion. Cosmetic products based on Aloe arborescens are used in various forms: masks, applications, balms, gels, creams, etc. Cosmetics based on aloe extract meet two main requirements: they are cosmetics of natural origin and are not of sufficiently high cost. Cosmetics presented on it contain both synthetic and natural components.

Conclusions. The marketing analysis of the market of cosmetics which include Aloe arborescens is conducted. It analyzed products, products of different manufacturers by price indicators. Thus, we can conclude that cosmetics based on Aloe arborescens meet two main requirements: they are cosmetics of natural origin and are not of sufficiently high cost. The above factors and the fact that there are no domestic manufacturers at all in the Ukrainian cosmetic market makes them promising for the development of new cosmetics.

RESEARCH ON DEVELOPMENT OF THE COMPOSITION AND TECHNOLOGY OF SUPPOSITORIES FOR HEMORRHOIDS TREATMENT

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Introduction. Hemorrhoids – a disease of the adult population, the proportion of which in the structure of coloproctological diseases ranges from 34 to 41%. Hemorrhoids is the most common disease among the diseases of the anorectal zone. This disease can be attributed to the diseases of civilization and lifestyle, in the development of which the crucial role belongs to the violation of microcirculation. Hemorrhoids equally often affects representatives of both sexes, but recently there has been a more frequent reference to proctologist of men. With age, the likelihood of developing the disease increases.

Aim: To conduct a complex of experimental studies on the development of the composition and technology of rectal suppositories for the treatment of hemorrhoids.

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.