

young granulation tissue is important.

In practice, all the phases of the wound process proceed consecutively and inseparably, passing into each other, and the duration of each phase can not be predicted accurately. The impossibility of a clear delineation of the end of the inflammation phase and the beginning of the granulation phase necessitates the development of new pharmacologically active dressings that have a complex of therapeutic properties: anti-exudative, antimicrobial and anti-inflammatory activity.

Aim. The purpose of this work was to develop the composition and technology of wound healing wipes based on dense extract of oak bark (DEOB), developed at the department of technology of drugs.

Materials and methods. Textile nonwoven materials which are allowed for use in medical practice, was used as the carrier of new wipes. They are highly absorbent, have a high gas exchange rate, do not cause irritation when applied.

Results and discussion. In order to provide a wide range of activities, it was advisable to introduce sodium alginate into the solution for saturation, which has hemostatic and wound healing properties. Sodium alginate is also used in pharmacy as a thickener and gel formulation agent. Therefore, in order to immobilize the DEOB on the wipes, we chose the method of applying the DEOB as the alginate hydrogel composition. Taking into account the technological properties of sodium alginate, namely very slow dissolution in water with the formation of a viscous colloidal solution, we investigated the dependence of the dissolution process on the presence of difference auxiliary substances. Taking into account the appointment of dressings, PEO-400 was chosen as an excipient, which has the highest osmotic activity. The optimal concentration of PEO-400 was set at a level that would significantly increase the rate of dissolution of sodium alginate. An optimal temperature of dissolution of sodium alginate is also established. Based on the study of the antimicrobial activity of the model samples, an optimal concentration of DEOB in alginate hydrogel was studied.

Conclusions. Based on the obtained results the composition of wipes, which have antimicrobial, hemostatic, antiexudative, wound healing activity, is theoretically and experimentally substantiated.

CHOICE OF EXCIPIENTS FOR PIROXICAM FAST DISSOLVING TABLETS

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Introduction. Piroxicam, 4-hydroxy-2-methyl-N-(2-pyridyl)-2H-1,2-benzothiazine-3-carboxamide-1,1-dioxide) belongs to the class of nonsteroidal antiinflammatory drugs (NSAIDs). Piroxicam is the frequently prescribed NSAIDs for the treatment of inflammation, pain and stiffness caused by rheumatoid arthritis, osteoarthritis and gout disease. Piroxicam's benefits still outweigh its risks. Piroxicam is characterized by good absorption when taken orally. After a single application, the effect is almost 24 hours, which allow taking piroxicam, depending on up to 1-2 times a day. The convenience of use is one of the factors that determines the compliance of patients with treatment, on which the success of therapy depends significantly. Modern dosage forms as fast dissolving tablets disintegrate rapidly in saliva without the need of swallowing with drinking water since the tablet is placed in the mouth. Traveling patients who can not have access to water are benefitted by such solid dosage form.

Aim. The choice of excipients for the development of fast dissolving tablets composition with piroxicam was the aim of this research work.

Materials and methods. Piroxicam, excipients, mixtures for compression and prepared tablets on their basis were research subject. The pharmaco-technological tests which presented in State pharmacopoeia of Ukraine were used for experiments.

Results and discussion. The most common method of fast dissolving tablets obtaining is the compression method. Analysis of literature data indicates that no changes in the properties of piroxicam in

presence of such excipients as lactose, sodium lauryl sulfate, and starch. Since piroxicam is poorly soluble in water, it is necessary to add ingredients to the tablets composition that dissolve well in water. Tablets taste is also an important factor, because they disperse directly in the mouth. Special excipients have been taken in order to improve the taste of the active substance.

Superdisintegrant and effervescent addition method were tried for formulation of tablets. Superdisintegrant addition technique was found as best and further study carried out using three superdisintegrants (crospovidone, croscarmellose sodium and sodium starch glycolate) and in different ratios.

Conclusions. The choice of excipients for piroxicam fast dissolving tablets and characteristics which may influence drug product performance was discussed.

DEVELOPMENT OF COMPOSITION AND TECHNOLOGY OF EXTEMPORANEOUS SUPPOSITORIES FOR THE TREATMENT OF THE HEMORRHOIDS

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Introduction. In recent decades in Ukraine, as in most civilized countries of the world, there has been an increase in the incidence and prevalence of proctologic diseases, of which about 20% are among the diseases of the digestive system.

The most common among proctological diseases are hemorrhoids, anal fissures and rectum gulps.

Hemorrhoids is an ancient disease, a person received her «in reward» for the straight line. The first mention of this disease was discovered in Babylonian manuscripts. In Greece, Hippocrates described this suffering and suggested ways of healing.

The treatment problem of this group of diseases is also relevant because this pathology is gaining increasing social significance, since it has become a frequent cause of long-term disability and disability of people both elderly and young and adulthood.

Aim. Development of the composition and technology of extemporaneous rectal suppositories for the treatment of hemorrhoids.

Materials and methods. In developing the composition of rectal suppositories, the following active pharmaceutical ingredients (APIs) were used: ethonium, calendula oil. As a suppository basis, it was proposed to use: solid fat, suppostsire AM.

Results and discussion. Modern medicine offers many medicines for both local use and systemic action. There are several dosage forms that are successfully used in the treatment of hemorrhoids, but the best of them are suppositories that have several benefits. The action of suppositories from hemorrhoids is aimed at getting rid of the main symptoms of the disease.

Treatment of inflammation of hemorrhoids is possible not only with the help of synthetic drug preparations. Vegetable oils can help in this. For this purpose, both ordinary vegetable oils and etheric oils can be used.

In the form of suppositories, it is possible to prescribe medicinal substances with various pharmacological and physical and chemical properties. Such combinations are appropriate and promising from a pharmacological point of view. To provide suppositories of combined action as active ingredients, it was proposed to introduce ethonium and calendula oil. The joint use of these substances can give a positive result, because the direct venotropic action of flavonoids and carotenoids in combination with the wound-healing action of ethonium has a complex effect on the inflamed areas of the mucosa, while increasing the microcirculation and tone of the vascular wall.

Ethonium is a well-known medicinal product, has bactericidal and bacteriostatic effects, stimulates wound healing, tissue regeneration, strengthening tissue respiration and activating metabolic processes in affected tissues, has a local anesthetic activity.