

## DEVELOPMENT OF THE COMPOSITION OF EXTEMPORAL SUPPOSITORIES WITH ANTI-INFLAMMATORY ACTION

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**Introduction.** Musculoskeletal pathology attracts the increasing attention of the world community due to its prevalence. WHO reports that joint pain is noted in 30 % of the population. The problem of pain remains one of the fundamental questions of medicine. Since the beginning of the XX century there are more and more people with inflammatory and degenerative diseases of the joints. There is a significant aging of the population, namely this category is the main consumer of NSAIDs. Among the various methods of administering drugs (D) into the body, rectal is of particular interest for practical medicine, as it combines the advantages and features of oral and parenteral. At the same time, about 80 % of the drug enters the general bloodstream through the system of the lower and middle hemorrhoidal veins, bypassing the liver and not being exposed to the enzymes of the gastrointestinal tract (GIT).

**Aim.** The aim is the development of the composition of combined extemporal suppositories for the treatment of inflammatory diseases of the organs of movement.

**Materials and methods.** To conduct the study the proper model samples of suppository bases and combined suppositories were prepared. There were used physical and chemical, technological, biopharmaceutical research methods in accordance with the requirements of State Pharmacopoeia of Ukraine.

**Results and discussion.** In the process of research, the technological and physical and chemical properties of lipophilic bases for the creation of combined suppositories of anti-inflammatory action to substantiate the optimal composition of the carrier were studied. Based on the evaluation of a number of parameters of lipophilic bases, such as melting temperature, solidification temperature, time of complete deformation, the optimal hydrophobic carriers were determined to create an effective rectal dosage form. The influence of surface-active substances (surfactants) on the degree of release of NSAIDs from rectal suppositories was studied. The composition of the combined extemporaneous suppositories for the treatment of inflammatory diseases of the organs of movement was developed.

**Conclusions.** Using biopharmaceutical research methods, the selection of the components of the basis for rectal suppositories for the treatment of pathologies of the musculoskeletal system was carried out. The necessity of introducing into the composition of surfactants in order to improve the quality characteristics of the dosage form was showed.

## PROSPECTS FOR NITROGLYCERINE USING IN OINTMENTS FOR TREATMENT OF HEMORRHOIDS

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**Introduction.** Hemorrhoids are called diseases of the rectum, in which there is an increase and excessive expansion of hemorrhoidal veins. This is due to their thrombosis, varicose enlargement and inflammation. The frequent concomitant disease of a hemorrhoids is an anal fissure. Anal fracture is one of the most common problems with the proctologist. The crack represents a painful defect of the mucous membrane of the anal canal and brings great discomfort for the patient.

The choice of drugs for local therapy is large (proctosedil, relief advans, ultraproct, proctoglyvolenol, etc.), but almost all of these drugs have a local anesthetic effect, but none of them affects the increased tone of the internal anal sphincter – the main link pathogenesis in this disease.

**Aim.** The purpose of our research was to justify the composition of the extemporal ointment with nitroglycerine for the treatment of hemorrhoids and anal fissures.