Polkovnikova Yu.A.,
Assistant Lecturer of pharmaceutical chemistry and pharmaceutical technology department, Voronezh State University

METHODOLOGICAL ASPECTS OF DOSAGE FORMS WITH MICROCAPSULES

Microcapsules dosage form characterized by a number of advantages. Application of microcapsules in pharmacy to reduce the reactivity of substances, extend shelf life unstable and perishable substances give new physical properties of products – to reduce volatility, change the density, mask the color, taste, smell , and also allows you to receive medications prolonged action. Currently, the number of microcapsules designed dosage forms: ointments, suspensions, emulsions, capsules, etc.

Researchers prepared microcapsules drugs different pharmacological actions and physico- chemical properties. Examples of such drugs are microcapsules Pentamidine, Captopril, Diltiazem and Metoprolol, Ampicillin, Ketoprofen, Buprenorphine, "Lomir" "Altiazem" and many others etc. As an example, the microcapsules modified Amoxicillin, releasing the active ingredient from the digestive tract for a prolonged time (up to 30 h).

The purpose of this study is to develop an integrated approach to the creation of the microcapsules.

The paper conducted a comprehensive study to develop a methodological framework creating microencapsulated dosage forms. Methodological framework includes a number of stages, providing for the physical and chemical properties of drugs and destination microcapsules, whereby the selected film-forming material and technology the best option.

In the future, optimize the composition based on rheological parameters and saturation of the interface. Based on the received parameters are optimized concentration and composition of a surfactant, if necessary, the rheological properties are adjusted by adding appropriate excipients.

Later developed technological scheme of production in relation to industrial conditions with the development of appropriate legal and technical documentation. At the final stage the pharmacological studies developed microencapsulated formulation.