

THE STUDY OF THE RHEOLOGICAL PROPERTIES OF PASTE WITH NATURAL ZEOLITE

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Introduction. In the development of modern medicine major role plays the study a possibility of natural substances be using as active pharmaceutical ingredients in new medicines. One component which is very promising from this point of view is natural zeolite. Zeolite - a natural mineral of aluminosilicate nature, which has a number of useful properties. In experimental work carried out at the Department of Industrial Technology of Drugs, were demonstrated the successful use of natural zeolite in solid dosage forms as filler, disintegrant and active substance (enterosorbent).

Currently we are developing technology and composition of oral paste containing the natural zeolite. This dosage form was chosen due to its several advantages: adsorption capacity is higher than for tablets; act faster than solid dosage forms; have good organoleptic properties; diluted forms of stable suspensions can be administered in unconsciousness states by using special catheters.

However, the disadvantage of water paste is an oral microbiological instability. They must be sterile or contain preservatives.

An important requirement for soft medicinal forms is studying their rheological properties. Compliance of these properties to modern requirements provides not only high consumer properties of dosage form but also its storage stability, ease of packaging and dosing.

Aim. The aim of this part of our researches is to study the rheological properties of paste.

Materials and methods. To determine the rheological properties viscometer REOTEST-2 was used.

Results and discussion. On the base of rheological investigations we experimentally selected the optimum type and concentration of the thickener (apple pectin 5%) and plasticiser (glycerine 7%) allowing obtaining paste with good rheological properties. Also we determined rational concentrations of natural zeolite which can be added to soft dosage. The range of zeolite concentration is 25-35%

Conclusions. In conclusion of the work, should be noted, that the natural zeolite is suitable ingredient for creating oral pastes on its base. The rheological properties of resulting composition correspond to all national pharmacopoeia requirements for pastes.