

# THE EFFECT OF QUANTITY OF THE BINDING AGENT ON PROPERTIES OF GRANULES WITH ANTIDIABETIC SOFT EXTRACT

Dolja O. V.

National University of Pharmacy, Kharkiv, Ukraine

antoneo@ukr.net

**Introduction.** One of a cause of disability, death, cost and a public health problem in the Ukraine is Diabetes mellitus. Therefore, the creation of new antidiabetic medicines in convenient oral dosage forms is relevant.

In the National University of Pharmacy at the Department of Pharmacognosy under the guidance of prof. Kovalev V.N. it has been obtained soft extract from herbal raw material with a hypoglycemic activity. The extract is a dark brown viscous mass.

The composition of granules with soft extract was formulated at Industrial Pharmacy department. The research work was supervised by Associate Professor Sichkar A.A.

**Aim.** The goal of our work was to examine effect of quantity of the binding agent on technological properties of granules with soft extract from herbal raw material.

**Materials and methods.** Granules were obtained with the using of the wet granulation method. The soft extract was dissolved in a different quantity of purified water for the obtaining of binding agents. Then ingredients from the groups of disintegrants, diluents and moisture regulators were wetted by the binding agent with soft extract. Wet mass was rubbed through the sieve with the size of orifices 1.5 mm. The obtained granules were dried and calibrated through the same sieve.

**Results and discussion.** The impact of different quantity of the binding agent on technological properties of granules with antidiabetic soft extract was researched (table). Since the extract is an active pharmaceutical ingredient, its amount in the binding agent was constant. Only the amount of water was varied. The granules moisture content after drying was  $5\pm 0.9$  %. Granules obtained with water 8.5 % by weight of mixture had acceptable characteristics.

Quantity of the water, % by weight of dry ingredients mixture	Technological properties of granules		
	Flowability, g/sec	The bulk density, g/ml	The prevailing fraction
8	$5.5\pm 0.6$	$0.52\pm 0.04$	-0.355 mm+0.18 mm (21%)
8.5	$7.1\pm 0.5$	$0.41\pm 0.02$	-1.5 mm+0.7 mm (53%)
9	Over-watered mass		

**Conclusions.** Thus the quantity of the binding agent was determined for the obtaining of high-quality granules with antidiabetic extract from herbal raw material.