

DETERMINATION OF PHARMACO TECHNOLOGICAL PROPERTIES OF ALVERINE CITRATE

Avdieiev A. A., Pulaev D. S.

National University of Pharmacy, Kharkiv, Ukraine

avdieievanatolii@gmail.com

Introduction. The actual problem of modern medicine and pharmacy is the necessity of broad and effective elimination of spastic disorders that occur in many people who suffer from digestive diseases. One of the most effective solution to this problem is the creation of new and effective medicines with active pharmaceutical ingredient of broad therapeutic action.

Among of myotropic spasmolytics, which are used in the treatment of different functional disorders of the gastrointestinal tract, can be distinguished Alverine citrate. The main indications for its application are the elimination of spasms of smooth muscles.

Purpose. Therefore the objective of work was research of pharmacotechnological indicators of Alverine citrate in order to develop of composition and technology of spasmolytic action drug.

Materials and methods of research. The results determine of shape and size of Alverine citrate particles are indicate that studied sample is polydisperse powder with the particles of anizodiametric shape in the form of shapeless lumps and their fragments. Surface of the particles is smooth. Based on the obtained data, we can assume that Alverine citrate will have poor fluidity and predict the expediency introduction of auxiliary substances.

The analysis of technological characteristics showed that the active pharmaceutical ingredient has poor fluidity, a significant difference in the parameters of bulk density before and after shrinkage depending on dismount of cylinder indicates the ability of a powder to clumping with a formation of systems that are quite resistant to destruction and that are undesirable in the technological process of capsules dosage forms, because it can lead to uneven dosing.

So the next step of our research was establishing the particle size of Alverine citrate. The degree of crushing was studied by sieve method. Distribution by factions occurred unequally: tiniest fraction was 9.89%, the highest – 0.46%. At the request of SPU particle size of powders for internal use should be 0.16 mm. This faction in the sieve analysis was about 64%. That is was necessary to conduct additional crushing of substance. After grinding Alverine citrate the size of the majority particles (about 95%) is in the range of 0.2 to 0.1 mm.

Conclusion. Thus obtained results are advisable to use in the development of composition and technology of capsules with Alverine citrate.