

PHARMACO-TECHNOLOGICAL TESTS OF FAST DISSOLVING TABLETS WITH ANTIMICROBIAL ACTIVITY

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Introduction. Fast dissolving tablets are becoming popular as one of the dosage forms. Such tablet disintegrates rapidly when placed on tongue, releases the drug that dissolves or disperses in the saliva. Some medicines have already been presented on the market by several pharmaceutical companies. Suitable drug candidates for such systems include antimicrobial medicines.

Ofloxacin is a synthetic broad-spectrum antibiotic which used to treat many infections. The bioavailability of this drug in the tablet form is approximately 98 %. The composition of fast dissolving tablets with ofloxacin was formulated at Industrial Pharmacy department. The research work was supervised by Associate Professor Sichkar A.A.

Aim. The evaluation of the prepared tablets for all pharmaco-technological parameters.

Materials and methods. The following research methods are used for tablets according SPbU: determination of the resistance of tablets to crushing, the friability, disintegration time. The immersion liquid is purified water at 37 ± 2 °C. The wetting time of the tablets was measured by special procedure.

Results and discussion. The tablets of ofloxacin were white in color with a yellowish tint and smooth surface. Weight variation of all formulations was found to be within the range of 398 mg to 403 mg.

A tablets require certain value of hardness to withstand the mechanical shocks during packaging and at the time of application. The resistance of prepared tablets to crushing varied from 45 to 50 N which show good mechanical strength with sufficient hardness. The friability of all the formulations with ofloxacin were found to be less than 1.0 % which was within the official acceptable limits. The results show resistance to loss of weight that indicates the tablet's ability to withstand abrasion in packaging and handling. The wetting time for all the formulations was found to be less than one minute for the optimized one which indicates faster disintegration of the tablet. The disintegration time of the tablets varied from 50 to 58 seconds. The tablets with increasing superdisintegrants amount may disintegrate quicker.

Now tablets are studied during storage.

Conclusions. The fast dissolving tablets with ofloxacin were estimated for all pharmaco-technological parameters which were found to be within the acceptable limits.