

DEVELOPMENT OF AMLODIPINE BESILATE FAST DISSOLVING TABLETS

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Hypertension and angina pain are ones of the most expressed diseases, with which a practical doctor is to meet. Such diseases and their frequency are so high in lot of countries around the world especially with the elderly people. Worldwide, approximately 1 billion people have hypertension, contributing to more than 7.1 million deaths per year. Overall, approximately 20% of the world's adults are estimated to have hypertension and suffer from angina pain.

Amlodipine is a long-acting dihydropyridine-type calcium channel blocker used to lower blood pressure and to treat angina chest pain. It is of large interest creation of antihypertensive medicines of amlodipine besilate in the form of fast dissolving tablets.

The aim of the current study was to develop the scientifically and experimentally grounded technology of the antihypertensive preparation on the basis of substance Amlodipine besilate in a fast dissolving tablets form.

Much attention is given by the domestic and foreign medicine of the last years to application of medicinal preparations in a rational medicinal form. In connection with this the fast dissolving tablets assumes ever greater importance due to disintegrating or dissolving rapidly in the saliva without the need of water. Fast dissolving tablets have been formulated for pediatric, geriatric, and bedridden patients and for active patients who are busy and traveling and may not have access to water.

With the purpose of tablets composition development we studied crystallography and pharmaco-technological properties of Amlodipine besilate powder that were supplied by "Chemphar", China. Microscope observations have demonstrated, that Amlodipine besilate substance was polydisperse powder of crystalline structure, the particles of which have an anisometric form. The main fraction of powder was 200-315 μm . The investigated substance had very poor flowability (only using vibration 106 sec/100 g of a sample), about what the angle of repose (45°), the Compressibility Index (54.35 %) and The Hausner Ratio (2.19) testified also. The bulk density was 0.22 g/ml, the tapped density 0.48 g/ml.

It predetermined the application of excipients for improvement technological properties of substance when formulating of tablet mass.

The developed tablets correspond to USP on all of indexes.