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# Design, Development and Evaluation of Fast Dissolving Film of Amlodipine Besylate

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**Abstract:** The present work aimed at preparing films of amlodipine with the reason of developing a dosage form for a very fast onset of action, which is beneficial in managing severe conditions of hypertension, aiding in the enhancement of bioavailability, and is very convenient for administration, without the problem of swallowing and using water. Amlodipine is a calcium channel blocker that dilates (widens) blood vessels, improves blood flow hence used to treat chest pain (angina) and other conditions caused by coronary artery disease. The films were prepared by a solvent casting method with polymers hydroxypropyl methylcellulose (HPMC) and superdisintegrants SSG. Compatibility study between drug and physical mixture was performed by FT-IR and DSC. The films were characterized for various physicochemical properties such as, physical appearance, surface texture, weight uniformity, thickness, drug content, swelling index, moisture content, in vitro study and stability study etc. Compatibility study showed no any kind of interaction between ingredients used. It was observed that concentration of polymer showed effects on physical parameter and dissolution time of formulation. A marked increase in the disintegration time was exhibited by fast-dissolving film containing low concentration of HPMC and highest concentration of superdisintegrants when compared with other films. Fast dissolving films of amlodipine can be considered suitable for clinical use in the treatment of heart disease and other conditions of coronary artery disease, where a quicker onset of action for a dosage form is desirable along with the convenience of administration.

**Keywords:** Amlodipine besylate, fast dissolving film, physical characterization, disintegration study, in vitro release profile.

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