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PERFORMANCE EVALUATION OF MELT IN FILMS OF RIZATRIPTAN BENZOATE USING DIFFERENT FILM FORMING AGENTS

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ABSTRACT

The present study was aimed to formulate and evaluate melt in mouth films of Rizatriptan benzoate using polymers pullulan, carragennan, xanthan gum and guar gum as the film forming agents. Rizatriptan benzoate is a 5-HT1 receptor agonist of the triptan class of drugs, used in the management of migraine. Glycerol was incorporated as plasticizer to improve flexibility of films. Sorbitol as sweetener. Sodium starch glycolate used as a disintegrant. An attempt was made to prepare melt in mouth films of Rizatriptan benzoate with the purpose of developing a dosage form for quick onset of action, which will be beneficial in managing severe condition of migraine attack, aiding in enhancement of bioavailability and easy for administration. The films were prepared by solvent casting method. They were evaluated for physicochemical characterization such as uniformity of weight, thickness, folding endurance, uniformity of drug content, surface pH, percentage elongation and tensile strength all of which showed satisfactory results. The formulations were also subjected for *in vitro* disintergration *and in vitro* drug release. Melt in mouth films of Rizatriptan benzoate containing single polymer pullulan (FRA1) showed best results, in terms of tensile strength, percentage elongation, folding endurance (>300), *in-vitro* disintegration time, surface pH, thickness and percentage content uniformity. Satisfactory dissolution profile was obtained with maximum release of 96% of drug within 120 sec. The stability studies showed that there was no appreciable change in parameters when stored at three different temperatures.

KEYWORDS: Melt in Mouth Films, Solvent Casting, Rizatriptan Benzoate, Rapid Disintegration