Formulation and evaluation of oral dispersible films of domperidone for rapid release

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Abstract

Formulation and evaluation of oral dispersible film of domperidone was used as the primary objective of the present work, in order that can be successfully used for the management of emesis. In the work done, the films were prepared by solvent casting technique and in vitro performance was evaluated by the usual pharmacopoeial and unofficial tests. The oral dispersible film formed was found to be disintegrated within 1 minute. The thickness, drug content, tensile strength, surface pH, disintegration time (DT), mouth dissolving time and release profile of oral dispersible films were evaluated, and the best results were obtained at the formulation F3 containing Hydroxypropyl Methylcellulose (HPMC) E5 LV (100 mg), citric acid (20 mg), aspartame (5mg) and Polyethylene glycol (PEG)-400. The Formulation F3 showed 100.11% release within 10 minutes. As follows, the developed oral dispersible film of domperidone might be clinically used for fast release of drug in mouth, for better drug utilization and improved patient compliance.

Key words: Aspartame, Citric acid, Disintegration time, Domperidone, Hydroxy propyl methyl cellulose, PEG-400, Solvent casting