

DEVELOPMENT AND EVALUATION OF DOMPERIDONE ORAL FILM USING MIXED SOLVENCY CONCEPT

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ABSTRACT

This study aimed to develop and evaluate oral film of antiemetic drug-using mixed solvency concept. The mixed-solvency concept was used in the solubility enhancement of domperidone, an antiemetic drug that is practically insoluble in water. Different types of solubilizers have been used for solubility improvement of domperidone and poly ethylene glycol, niacinamide, caffeine were found to be effective. Five formulations were prepared by using HPMC E15 a film-forming polymer. The prepared oral films were subjected to evaluation for thickness, pH, drug content, folding endurance, stability and *in vitro* drug release profile. The % *in vitro* drug release of the best two formulations F3 and F5 were 90.70% and 96.62 % respectively. From the above study, it was concluded that the solubility of the practically insoluble drug, domperidone could be improved successfully by using different water-soluble solubilizers in different ratios under the mixed-solvency concept.

Keywords: Oral film, PEG-Polyethyleneglycol, niacinamide, caffeine, HPMC E15, mixed solvency concept.