Formulation and evaluation of Mouth Dissolving Film of Antiemetic drug

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Abstract

The aim of the present investigation was to prepared Tropisetron HCL mouth dissolving film using the HPMC E-5 LV and HPMC E-15 LV hydrophilic polymer by the solvent casting method. The formulation was evaluated for various in vitro parameters like colour, transparency, surface of film, thickness, folding endurance, surface pH, % elongation, in vitro disintegrating time and % drug content. Polymer showed good film forming capacity. Film was colorless and transparent. The drug- polymer interactions were studied by FT-IR and results suggested no interaction between drug and polymers. The in vitro disintegrating time was found 72 sec. Film also showed pleasant taste. Glycerine (20%25%30% w/w of polymer) was used as the plasticizer which gave good elasticity to the film. The drug content of the film was found to be more than 98%. In vitro dissolution studies were performed by using Dissolution Apparatus USP II. Among the various batches (F1-F9 and E1-E9) E5 showed highest drug release and they released more than 98% drug released within 80 sec. From all the formulations, formulation E5 was selected as the optimized formulation and evaluated further for stability study. The formulation was found to be stable for period of one month study

Key words: Mouth dissolving film, solvent casting method, Tropisetron HCL, glycerine, HPMC E5 LV, HPMC E15 LV..