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Review Article – An Overview on Fast Dissolving Oral Film

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Abstract: *In the late 1970s, fast-dissolving drug delivery methods were initially created as an alternative to conventional dosage forms. An inventive method of drug delivery based on transdermal patch technology is the oral thin film. Solid dose forms that dissolve and disintegrate rapidly in the mouth without the need for water make up these systems. Two varieties of fast-acting pharmaceutical delivery systems include oral thin films (OTFs) and oral disintegrating tablets (ODTs). ODTs are defined as "A solid dosage form containing medicinal substances, which disintegrates rapidly, usually within a matter of seconds, when placed upon the tongue." Consequently, OTFs quickly hydrate before dissolving or disintegrating, enabling local absorption of the medication. The goal of the current study was to create TC with fast-dissolving films that could be locally administered to the oral cavity. A variety of polyhydric alcohols, film forming agents, and film modifiers were assessed in order to maximise the composition of films that dissolve quickly. It was examined whether poloxamer 407 and hydroxypropyl-β-cyclodextrin (HPBCD) could increase the solubility of TC. Xanthan gum, xylitol, and hydroxypropyl methylcellulose (HPMC) were combined to create fast-dissolving films. The solubility of TC was significantly improved by the use of poloxamer 407 and HPBCD. TC-Poloxamer 407 and TC-HPBCD complex were used to make fast-dissolving films, which were then assessed for their in vitro microbiological test and dissolution profile.*

Keywords: Mouth dissolving film, Solvent casting, Hot melt extrusion, Advantages

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