Formulation and evaluation of mouth dissolving tablet of anti migraine drug.

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Abstract

In present study, an attempt was made to develop a mouth dissolving tablet of Almotriptan malate for the treatment of migraine by three different method direct compression method, Sublimation method, Wet granulation method. Selection of satisfactory formulation by in vitro evaluation. Cross povidone, cross carmellose sodium and sodium starch glycolate was used as super disintegrant. Drug excipient compatibility Study was carried out by fourier transform infrared spectroscopy which shows the drug and excipients are compatible to each other. An optimized formulation was having excellent appearance and proper hardness, thickness and in vitro dissolution time by releasing 100.06% in vitro drug release in 12 min in PBS pH 6.8 . The *in vitro* disintegration time was found to be 21 sec and it was found that there was no residue remain after disintegration in media. Stability study of an optimized batch shown that there was no significant change in hardness, in vitro disintegration time and in vitro drug release study after storage at 40º ± 2ºC and 75 ± 5% RH for a period for 1 month. This approach suggest that Mouth dissolving tablet using cross povidone (7.5% w/w) by direct compression method gives quick on set of action at around 21 sec and improved patient compliance for treatment of migraine.

Key words: Mouth dissolving tablet, Almotriptan malate, direct compression method, cross povidone, quick on set of action