ABSTRACT

The poor aqueous solubility of the drug results in variable dissolution profile and hence poor bioavailability. The aim of present work is to enhance the aqueous solubility of drug by adsorbing it on lactose employing solvent deposition technique and formulating it into rapid-disintegrating tablet to show the effect of various super disintegrants on the disintegration time and in vitro drug release rate.

In this study, an attempt had been made to prepare rapid-disintegrating tablets of the drug using different super disintegrants following wet granulation method. The sodium starch glycolate, cross carmellose sodium and pregelatinized starch (Starch 1500®) were used in different concentration, as the super disintegrants, according to the simplex lattice design. The tablets were evaluated for diameter, thickness, hardness, friability, weight variation, wetting time, percentage of water absorption, disintegration time and in vitro dissolution studies. The disintegration time of all formulation showed less than 74 seconds. Formulation containing equal amount of Cross carmellose sodium and Starch 1500® showed fastest disintegration than other formulation containing Starch 1500®, cross carmellose sodium and sodium starc..
glycolate in various proportions and the percentage drug release was 99.8 within 7 minutes.