ABSTRACT

Cyclizine hydrochloride is an orally active third generation non- sedative antihistamine used in the symptomatic relief of motion sickness. It has bitter taste and hence an attempt was made to taste mask by complexation using weak cationic exchange resins such as Indion204, Indion234, Indion234S which also acts as superdisintegrants. Thus the present work was undertaken to investigate the dual role of ion exchange resins. Drug loading was optimized with respect to drug: resin ratio, stirring time, volume of loading solution, swelling time of the resin and temperature. The resinates were processed into tablets by granulation and direct compression. Formulations were evaluated for various quality control parameters such as weight variation, friability, hardness, disintegration time, taste evaluation, mouth feel, wetting time, *In-vitro* dissolution studies and also subjected for stability studies. The *In-vitro* drug release study of best formulations F_7 and F_8 showed 100.41% and 98.46% respectively. Complete drug release from both the formulations was observed within 20 min. The taste evaluation of tablets showed complete masking of the bitterness of the drug. Stability studies indicated no appreciable changes in the above mentioned parameters for 3 months.

Key words: Cyclizine hydrochloride, Weak cation exchange resins, Taste masking, Superdisintegrants, Oro-disintegrating tablets.