ABSTRACT

Current study was focused on formulation development of orodispersible tablet of Galantamine which disintegrates extended release pellets. Drug coating of drug was done on Celphere CP 203 with the help of Povidone K30 as a binder. Extended release pellets were formulated using wurster process. Extended release coating on drug loaded pellets was done using eudragit NE 30D as a rate limiting polymer. About 30% extended release coating with eudragit NE 30D showed comparable drug release pattern that of with marketed preparation’s pellets of Galantamine ER. Also optimization was done for percentage of extended release coating using one factor at a time (OFAT) approach. Further curing study on extended release pellets showed a bit slower dissolution rate but that is not having that much of big difference that would merely differ from marketed preparation drug release profile. These pellets were then compressed into tablets that were dispersed within 30 seconds, releasing extended release pellets. These formulations showed ideal drug release comparable to precompressed pellets. It showed no rupture of extended release pellets that can hamper the drug release pattern. At accelerated stability conditions developed formulations were found to be stable for six month. Optimization study was done for this formulation using full factorial design having 2 factors (percentage of ER coating and amount of disintegrant) with 2 levels.

Keywords – Galantamine, Extended release orodispersible tablet, extended release pellets, Eudragit NE 30D, Antialzheimer drug etc.