Cefpodoxime proxetil gastroretentive effervescent floating tablets by using various hydrophilic polymers

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In the present research work gastro retentive floating matrix formulation of Cefpodoxime proxetil by using various hydrophilic polymers were developed. Initially analytical method development was done for the drug molecule. Absorption maxima was determined based on that calibration curve was developed by using different concentrations. Gas generating agent sodium bicarbonate concentration was optimized. Then the formulation was developed by using different concentrations of polymers of various grades of HPMC as polymeric substances. The formulation blend was subjected to various preformulation studies, flow properties and all the formulations were found to be good indicating that the powder blend has good flow properties. Among all the formulations the formulations guar gum as polymer were retarded the drug release up to desired time period i.e., 12 hours in the concentration of 180 mg. whereas in low concentrations the polymer was unable to produce the desired action. (F12 Formulation, 98.52% Drug release). The formulations prepared with HPMC K100M were also retarded the drug release for more than 12 hours. Hence they were not considered. The optimized formulation dissolution data was subjected to release kinetics, from the release kinetics data it was evident that the formulation followed Fickian Peppas order mechanism of drug release.

Biography

M Naga Ganesh has completed his MPharm and Research Scholar at JNTU, Anantapur. He is presently working as associate Professor in Geethanjali College of Pharmacy, Cheeryal, Ranga Reddy, Telangana, India. He has published more than six papers in reputed journals.