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Formulation Development and Evaluation of Cimetidine Floating Microspheres

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Abstract: The present study was aimed to prepare Cimetidine floating microspheres by Ionotropic gelation technique with different drug to carrier ratio. All formulations of Cimetidine were characterized for particle size, scanning electron microscopy, FT-IR study, DSC, percentage yield, drug entrapment, stability studies and found to be within the limits. Among all the formulations, F13 was selected as optimized formulation based on the physicochemical and release studies. In the *in vitro* release study of formulation F13 showed 96.10% after 12 h in a controlled manner, which is essential for anti ulcer therapy. The innovator Cimetine conventional tablet showed the drug release of 96.15% within 1 h. The drug release of F13 formulation followed zero order and Higuchi kinetics indicating diffusion controlled drug release.

Key words: Cimetidine, chitosan, gum kondagogu, floating microspheres.

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