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Formulation Development and Evaluation of Floating Microspheres Of Gemifloxacin Mesylate

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Abstract: The present study was aimed to prepare the Gemifloxacin mesylate floating microspheres by Ionotropic gelation technique with different drug to carrier ratio. Gemifloxacin mesylate All the microspheres were characterized for particle size, scanning electron microscopy, FT-IR study, DSC, percentage yield, drug entrapment, % buoyancy, stability studies and found to be within the limits. Among all the formulations F9 were selected as optimized formulation based on the physic chemical and release studies. In the *in vitro* release study of formulation F9 showed 97.58% after 12 h in a controlled manner, which is essential for anti ulcer therapy. The innovator Gemiflox conventional tablet shows the drug release of 96.23% within 1 h. The drug release of F9 formulation followed zero order and Higuchi kinetics indication diffusion controlled drug release.
Key Words : Gemifloxacin mesylate, HPMC, gum kondagogu, floating microspheres.

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