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Abstract

Characterization of Mucoadhesive Tablets of Ciprofloxacin

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Abstract:

Introduction: Ciprofloxacin is a new generation fluoroquinolones antibiotic used for the treatment of IBD and specific complication of crohon's disease. Ciprofloxacin inhibit DNA gyrase of bacteria such as M.fortuitum, M.Kansaii and M.tuberculosis. Ciprofloxacin show therapeutic efficacy for the treatment of prostatitis caused by the sensitive bacteria. Oral dose in adults are 250-750mb. Plasma half-life of Ciprofloxacin is 3-5 hours. The short half-life of drug (3-5hours) also favors the development of a sustained release formulation.

Aims & Objectives: The present study aims to prepare mucoadhesive tablets by using multiple mucoadhesive polymers.

Material and Methods: In the study various approaches to combine hydrophilic (HPMC, SCMC, tragacanth, and sodium alginate) and hydrophobic (ethyl cellulose) polymers have been made to prepare total seven formulations. Further, these formulations were subjected to different evaluation studies like content uniformity, surface pH, friability, wash off and dissolution tests. All the tests were performed using standard methods.

Results: In vitro drug release and wash-off studies suggest that the formulation (F7) containing tragacanth and HPMC has shown better mucoadhesive property. Satisfactory results are obtained by other studies in all seven formulation.

Conclusion: Data obtained suggests this combination of HPMC and tragacanth, as hydrophilic polymers for preparation Ciprofloxacin mucoadhesive tablets.

Biography:

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