



## Formulation And In-Vitro/in-Vivo Estimation Of Sustained Release Mucoadhesive Tablets Of Itopride Hydrochloride

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### ABSTRACT

#### Keywords:

Itopride HCl, oral drug delivery, mucoadhesive tablets, sustained-release,

Mucoadhesive tablets of Itopride HCl were formulated with a view to enhance bioavailability, extend the drug release and also decrease the recurrence of dose administration. Methods: The mucoadhesive tablets were formulated by the direct compression method using carboxymethyl cellulose blending with carboxymethylcellulose and Polycarbophil. The results: Tablets showed good mucoadhesive characteristic in the in vitro test and detected that carboxymethyl cellulose had greater mucoadhesive force than that of Polycarbophil. Itopride HCl release from this mucoadhesive tablets was slow and showed sustained release. Bioavailability study of optimized formula was carried out and results revealed that the mucoadhesive tablets showed bioequivalence with a commercial immediate release tablet with higher mean AUC (0- $\infty$ ) and C<sub>max</sub> and longer T<sub>max</sub>. Conclusion: The results confirm that the prepared Mucoadhesive tablets of ITO HCl could be a promising drug delivery system with sustained-release action and enhanced drug bioavailability.