

Verma S, Kumar V, Jyoti, Mishra DN. Formulation, evaluation and optimization of mucoadhesive microspheres of acyclovir. *Bull. Pharm. Res.* 2014;4(1):14-20.

Abstract: Acyclovir-loaded mucoadhesive microspheres using gum tragacanth as a mucoadhesive polymer and barium chloride as cross-linker were prepared for the purpose of improving oral bioavailability of acyclovir. The prepared microspheres were characterized for parameters such as percent yield, percent mucoadhesion, entrapment efficiency, *in vitro* release and flow properties. The formulations were optimized using central composite design using two variables viz. gum tragacanth and sodium alginate at three levels. Pharmacokinetic based mathematical models applied to drug release data suggested that the release of drug from microspheres followed fickian diffusion.

Key words: Acyclovir, Mucoadhesion, Microspheres, Gum tragacanth.

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