



Ileo-Cecal Targeting Mucoadhesive Budesonide Tablet

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SUMMARY. Crohn's disease occurs at any part of gastro-intestinal tract (GIT) but the most susceptible is the ileo-cecal region. For an effective treatment of this disease is essential the drug to be released at ileo-cecal region for an extended period of time. The present study is an attempt to design and develop an ileo-cecal targeting mucoadhesive drug delivery system that may be released specifically and slowly in ileo-cecal region without being released in the upper GIT for an extended period of time (12 h). Budesonide mucoadhesive tablets are coated with Eudragit S100, which is a polymer that specifically dissolves at and above pH 6.8. The *in vitro* drug release by changing pH method was done and *in vivo* study using X-ray radiography was carried out to ascertain the position of tablets in GIT after specific time intervals. The *in vitro* performance of the tablet with 10 % w/w coating level showed that the tablet did not disintegrate till 16 h with constant drug release. An *in vivo* study also reveals that the tablet lasted till 16 h in the ileo-cecal region.

KEY WORDS: Carbopol 974 P, Eudragit S100, HPMC K100M, Ileo-cecal targeting, *In vivo* X-ray study.

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