



Formulation Design and Evaluation of Bioadhesive Vaginal Films of Metronidazole for Vaginal Candidiasis

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SUMMARY. The purpose of this work was to design and evaluate a novel vaginal delivery system for the local treatment of vaginal candidiasis. Bioadhesive vaginal films of metronidazole that could be retained in the vagina for prolonged period for more effective treatment against vaginal candidiasis were formulated by solvent casting technique using bioadhesive polymers such as chitosan, HPC and sodium CMC. Glycerine and propylene glycol were used as plasticizer. The films were characterized for various physical, mechanical, and aesthetic properties. Bioadhesive strength and *in vitro* release studies suggested that the prolonged release bioadhesive vaginal film formulation of metronidazole is useful and effective dosage form for treating vaginal candidiasis. It may be concluded from present study that MTZ bioadhesive vaginal film can be used as a novel delivery system for local therapy of vaginal candidiasis.

KEY WORDS: Bioadhesive vaginal film, Chitosan, HPC, Metronidazole, Sodium CMC, Vaginal candidiasis.

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