



A REVIEW ON COLON TARGETED DRUG DELIVERY SYSTEM

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ABSTRACT

Colon-specific drug delivery system (CDDS) have been developing as one of the site specific drug delivery system. Along with many application in local and systemic delivery of drugs the CDDS would also be advantageous when a delay in absorption is desirable from a therapeutic point of view as for the treatment of diseases that have a peak symptom in the early morning and that exhibit circadian rhythm, such as angina, asthma and rheumatoid arthritis. So by developing the pulsatile device for colonic delivery, plasma peak is obtained at an optimal time, number of doses per day can be reduced to a large extent.

Keywords: pH and microbial combine approach for drug delivery, CDDS, circadian rhythm, rheumatoid arthritis

INTRODUCTION

Among modified-release oral dosage forms, increasing interest has currently turned to systems designed to achieve time specific (delayed, pulsatile) and site-specific delivery of drugs. These systems constitute a relatively new class of devices the importance of which is especially connected with the recent advances in chronopharmacology (Sangalli et al., 2001). In the last decade numerous studies in animals as well as clinical studies have provided convincing evidence, that the pharmacokinetics and/or the drug's effects-side

effects can be modified by the circadian time and/or the timing of drug application within 24 h of a day.

Chronotherapy: Potential site for the treatment of diseases sensitive to circadian rhythms (asthma, hypertension, angina and arthritis). These diseases are characterized by night-time or early morning onset. For treatment of these diseases, it is therefore highly desirable to have a delayed-release delivery system that can provide nocturnal release of a drug, which in