

A REVIEW ON MUCOADHESIVE DRUG DELIVERY SYSTEM

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ABSTRACT

Buccal controlled drug delivery system has been developed since the environment of the oral cavity provides potential sites for drug delivery. Within the oral mucosal cavity, the buccal region offers an adorable route of administration for systemic drug delivery. Among the various transmucosal sites available, mucosa of the buccal cavity was found to be the most convenient and easily approachable site for the delivery of therapeutic agents for both local and systemic delivery as retentive dosage forms. Mucoadhesion can be defined as a state in which two components, of which one is of biological origin are held together for extended periods of time by the help of interfacial forces. The mucosa has a rich blood supply and it is relatively permeable. Buccal dosage forms will be reviewed with an emphasis on bioadhesive polymeric based delivery systems. The mucoadhesive interaction is explained in relation to the structural characteristics of mucosal tissues and the theories & properties of the polymers. Degree of mucoadhesion bonding is influenced by various polymer-based properties. The market share of transmucosal drug delivery systems has been increasing. This review will provide an insight into this route of drug delivery and the formulations that are, or can be, used, and it will also describe the challenges or possibilities of this route of administration. There is novel drug delivery system like buccal drug delivery system in which drug enters directly in systemic circulation thereby by passing the first pass effect.

Key Words: Buccal controlled drug delivery, mucosa, transmucosal, mucoadhesion