

Development & evaluation of Mucoadhesive buccal films of Flunarizine

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ABSTRACT: In this Study the effectiveness of Flunarizine against migraine was evaluated in the form of buccal patch. The main choice of drug delivery system as buccal system due to increased rate of absorption and for getting better therapeutic results against the migraine. According to the various literatures Flunarizine found to an effective drug against the migraine. So, in that study we make a buccal patch of Flunarizine for better absorption and faster action against the migraine. For the evaluation purpose we done various Physiochemical tests to evaluate the effectiveness of Flunarizine against the migraine.

I. INTRODUCTION

Buccal patch

Buccal patch is made up of one or more than one polymer layer which are filled by drug or other excipients & buccal patch is modified release dosage form and have non- dissolving thin matrix. Buccal patch have a mucoadhesive polymer layer that bonds to the oral cavity & then release drug in the oral cavity. After sometime the buccal patch is removed from the mouth.(1,2)

There are so many mucoadhesive devices available in market including strips, patches, gels, films, tablets etc but buccal patch have more flexibility and comfort as compare to other mucoadhesive devices. Gels are easily washed by saliva but buccal patch are not easily washed(3). Nowdays, buccal patches becomes the more advance dosage form for buccal administration. Buccal patches have high bioavailability because its directly enter into the systemic circulation by a jugular vein & that vein bypass the drug from first pass metabolism. Buccal patches are more used as compare to buccal tablet because buccal patches have high comfort and flexibility as compare to buccal tablets. Buccal patches have good patient compliance and cost is

also effective(4,5). In buccal patch preparation polymer composition plays a major role because efficiency of the mucoadhesive formulation depend upon it. Buccal patches have lots of benefits like it have low enzymatic activity, easy administration to patient,

It also have ability to change pH, buccal patch also work as enzyme inhibitor, easy to use(6). Buccal patches are ellipsoid in shape due to this shape the buccal patch fully fit on the centre of the buccal mucosa. Buccal patches are formed by casting a polymer solution, excipients & drug on the surface & allow to dry. Buccal patches are of different sizes available in the market(7). In emergency buccal patches are more preferred dosage form as compare to other oral dosage form. Buccal patches is made up of the plasticizer, active pharmaceutical ingredient & polymers. Plasticizer plays a major role in the composition of buccal patches by providing rigidity & strength to the buccal patch. Polymer also plays an important role in the composition of buccal patch because it have mucoadhesive property which help in increasing the retention time of the buccal patch at the site of action which result in faster absorption of the drug.(8).

Mouth dissolving films are commonly the size of a postage stamp and break down on a patient's tongue surprisingly fast for the fast arrival of at least one active pharmaceutical ingredients(9). Quick dissolving dose innovations are significant for patients who experience issues taking conventional oral measurement structures, just as those who need the accommodation of whenever dose at the point when water isn't accessible. Numerous pediatric and geriatric patients are reluctant to take strong arrangements because of dread of gagging. The most well-known protest was