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Editorial

Formulation of Oral films for the Treatment of Cough

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EDITORIAL

Coughing is the protective mechanism of the body. Some pharmaceutical formulations used to treat coughing were syrups and solutions. These preparations had several disadvantages like bioavailability, dosing frequency and stability problems. To overcome these problems mouth dissolving film was developed. The films have potential to be used for delivery of those drugs that are required for immediate relief to the patients. The polymers, used, are totally edible and non-toxic.

The Oral administration is the most preferred route due to relieve of ingestion, pain reduction, to accommodate various types of drug candidates and the most important patient compliance. Solid oral delivery systems are cheaply manufactured because they don't require sterile conditions. Many pharmaceutical dosages are administered in the form of liquids, powders, pills and granules. Some patients especially geriatric and pediatric have problems in swallowing of tablets and capsules. These types of patients are always unwilling to take solid preparations.

In Oral route has been the most convenient and popular route of administration for the delivery of drugs. Patient compliance and greater flexibility in dosage form design Mouth dissolving film becomes a novel approach to oral drug delivery system as it provides convenience and ease of use over other dosage forms such as orally disintegrating tablets buccal tablets and sublingual tablets, so mouth dissolving films are gaining the interest of large number of pharmaceutical industries. Mouth dissolving film was developed on the basis of technology of transdermal patch.

The improved systemic bioavailability results from bypassing first pass effect and better permeability due to a well-supplied vascular and lymphatic drainage. Also, large surface area of absorption, easy ingestion & swallowing, pain avoidance makes the oral mucosa a very attractive and selective site for systemic drug delivery. Buccal drug delivery has lately become an important route of drug administration. Various Bio adhesive mucosal dosage forms have been developed. Fast-dissolving drug-delivery systems were first developed in the late 1970s as an alternative to tablets, capsules, and syrups for pediatric and geriatric patients who experienced difficulties in swallowing traditional oral solid-dosage forms. The novel technology of oral fast-dispersing dosage forms is also known as fast dissolve, rapid dissolve, rapid melt or quick disintegration. Many drugs like cough remedies, antiasthamatics, antihistaminic, erectile dysfunction drugs, sore throat, gastrointestinal disorders, and nausea, pain and CNS drugs can be incorporated. Other applications include the preparation of caffeine strips, multivitamins, sleeping aid and snoring aid etc.

The physical characterization of the formulated oral films were done by casting method techniques and the results were for various parameters like weight variation of the films, thickness of the films, Tensile strength of the films, Folding endurance of the films, Disintegration time, Mouth dissolving time, Drug content uniformity of films, In-vitro dissolution. The Oral drug delivery by sublingual, mucosal and buccal become preferable for therapies in which immediate absorption is required including those used to manage pain, allergies, sleep problems and CNS disorders. Topical applications, the oral films are ideal in the delivery of active agents like analgesic or antimicrobial ingredients for the care of wound and other applications. Gastro retentive dosage systems, poorly soluble and water soluble molecules of different molecular weights are found in film format.

Our Mouth dissolving l films are considered a class of patient-centric dosage forms suitable for patients with special needs, such as children or older patients suffering pain. Patient acceptability can be optimized by the design of the dosage form. Stickiness, disintegration time and user friendliness are important parameters for patient acceptance relatively new application path with potential is drug delivery over the oral mucosa for small molecule drugs as well as biopharmaceuticals. via this route, the hepatic first pass metabolism is largely bypassed, which may lead to an increased bioavailability from the above study that herbal mouth dissolving blend may be used as orally dissolving film for the fast release of oral mucosa route.

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