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A REVIEW

Ethosomes in transdermal drug delivery

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ABSTRACT

Transdermal drug delivery system was first introduced more than 30 years ago. The technology generated tremendous excitement and interest amongst major pharmaceutical companies in the 1980s and 90s. By the mid to late 1990s, the trend of transdermal drug delivery system merged into larger organizations. Ethosomes are noninvasive delivery carriers that enable drugs to reach the deep skin layers and the systemic circulation. Although ethosomal systems are conceptually sophisticated, they are characterized by simplicity in their preparation, safety and efficacy a combination that can highly expand their application. Ethosomes are soft, malleable vesicles tailored for enhanced delivery of active agents. This article reviews various aspect of ethosomes including their preparation, characterization, potential advantages and their applications in drug delivery. Because of their unique structure, ethosomes are able to encapsulate and deliver through the skin highly lipophilic molecules such as cannabinoids, testosterone, and minoxidil, as well as cationic drugs such as propranolol, trihexyphenidil, Cyclosporine A, insulin, salbutamol etc. Ethosomes have become an area of research interest, because of its enhanced skin permeation, improved drug delivery, increased drug entrapment efficiency. Ethosomes including their mechanism of penetration, preparation, advantages, composition, characterization, application.

Key words : Ethosome, Ethanol, Transdermal delivery, Phospholipid, Vesicle

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