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A Review on Topical gel with emphasis on Permeation enhancer excipient

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Abstract: Topical medication administration is a localized drug delivery system anywhere in the body by means of ophthalmic, rectal, vaginal and skin as topical routes. Skin is the one of the universal and administration and is main route of topical drug delivery system. The human skin serves as an impediment, a thermo regulator and prevents excessive loss of water from the internal organ. Enhancement in skin permeation by hydration of the stratum corneum, or by use of chemical enhancers acting on the lipids and keratinized structure in the stratum corneum, partitioning and solubility effect is a promising tool in potential clinical application. Permeation substances or excipients is a new emerging technology which has the potential to increase the number of drug taken transdermally. Among many advantages over other routes the three crucial ones are avoiding metabolism in liver, minimal negative effects and increased bioavailability. Also, the stratum corneum prevents the loss of physiologically essential substances and as a protective barrier. This is the rate limiting step in the absorption of the drug percutaneously. In this review article, we present a topical formulation on with emphasis given various advances made on permeation enhancers based on literature survey of various research articles.

Keywords : Topical gel; Drug delivery; Permeation enhancer; Nonoemulgel; DSC (Differential scanning colorimetry); SC (Stratum corneum); PG (Propylene glycol); DMSO (Dimethyl sulfoxide; DC (Direct Current); US (Ultrasound); LRN (Lornoxicam).

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