Development of Salicylic Acid Ethosomes for Treatment of Psoriasis
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Purpose
Psoriasis is commonly recognized as itchy, scaly, painful and disfiguring inflammatory condition of the skin that affects approximately 2% of the population characterized by excessive growth and aberrant differentiation of corneocytes and may be reversible with application of appropriate therapy. In the present work, an attempt has been made to formulate salicylic acid loaded ethosomes in order to enhance bioavailability of drug through scaly skin and reduce side effects.

Methods
Ethosomal formulations were prepared by mechanical dispersion method containing soya phosphatidyl choline (2-3%) and ethanol (20-40%). The drug concentration was taken as 10mg/ml or 1% w/v and the concentration of propylene glycol was fixed as 1% v/v.

Results
The entrapment efficiency of optimum formulation was found to be 78.33% with zeta potential- 17.3 mV and vesicle size of 295.4nm containing 40% ethanol. In- vitro release study of the optimized formulation containing 40% ethanol exhibited 24.88% of drug release in 1.5 hours with 139.65µg/cm2/h of transdermal flux. In-vivo study of the formulation showed a marked effect on the de-scaling of the skin with hair growth within 15 days.

Conclusion
Hence it can be concluded that the ethosomal formulation possess great potential for transdermal drug delivery of salicylic acid which can be applied for the treatment of psoriasis and other skin diseases