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Effect of pH, Vehicles and Chemical Enhancers on the Skin Permeation of Loratadine

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***SUMMARY*. The objective of this work was to investigate feasibility of transdermal delivery of loratadine. Effect of pH, vehicles and chemical enhancers on the skin permeation of loratadine was studied in vitro, using rat abdominal skin as a barrier. In the permeation studies, horizontal 2-chamber diffusion cells were used. The amount of loratadine transferred through the skin into the receptor solution, 30 % ethanol-saline solution (v/v), was determined at a predetermined time intervals for 8 h using a high performance chromatography (HPLC). The results showed that transdermal transport of loratadine was not significantly affected by pH. 30 % ethanol-saline solution in donor chamber was more effective than 40 % PG-saline solution in deliverying loratadine *in vitro*. Among the permeation enhancers (azone, oleic acid, menthol, and borneol) examined, l-menthol and borneol showed the greatest enhancing effect using ethanol as a solvent. Overall, these findings allow a rational approach for designing an effective loratadine transdermal delivery system, it is worth carrying out further investigations.**

KEY WORDS: Loratadine, *In vitro* permeation, l-menthol, Borneol, Ethanol

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