Latin American Journal of Pharmacy
(formerly *Acta Farmacéutica Bonaerense)*
Lat. Am. J. Pharm. **32** (7): 1027-34 (2013)

Regular article
Received: May 22, 2013
Revised version: July 27, 2012
Accepted: July 30, 2013

Preparation of Salbutamol Sulphate and Ketotifen Fumarate Combined Patches and Evaluation of Permeation Enhancers Using Rabbit Skin

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***SUMMARY*. The aim of this work was to develop combined transdermal patches of ketotifen fumarate and salbutamol sulphate. Various patch formulations of combined anti-asthmatic drugs were prepared using ethyl cellulose (EC) and eudragit RL100 as polymers. Propylene glycols (PG), tween 80, isopropyl myristate (IPM), eucalyptus oil, castor oil and span 80 were used to enhance the permeation of drugs. Formulated patches were evaluated for their smoothness, clarity and brittleness visually. Uniformity of thickness and drugs contents were also studied. Kinetics of release was studied by performing dissolution experiments. Finally the developed patches were subjected for *ex vivo* permeation of drugs through rabbit skin membrane using Franz diffusion cell. This study suggests that different enhancers showed different amounts of drugs release and permeation from patches. The patch having IPM as permeation enhancer, showed maximum amount of release and permeation of both drugs. The patches having castor oil as permeation enhancer, showed least amount of release and permeation of both drugs. The findings of the study suggest that ketotifen fumarate and salbutamol sulphate can be developed in combined form in single patch and release and permeation of combined drugs can be optimized.**

KEY WORDS: Enhancers, Ketotifen fumarate, Permeation, Salbutamol sulphate, Transdermal patches.

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