

Mohabe V, Akhand R, Pathak AK. Preparation and evaluation of captopril transdermal patches. *Bull. Pharm. Res.* 2011;1(2):47-52.

Abstract: Transdermal matrix patches of captopril were prepared by casting method employing different ratios of polyvinyl alcohol, ethyl cellulose, polyvinyl pyrrolidone and hydroxypropyl methylcellulose. The prepared matrix patches were evaluated for physicochemical characteristics such as thickness, weight variation, folding endurance, drug content, percent moisture content, water vapour transmission and *in vitro* drug permeation studies. The results of all physical parameters were satisfactory for the prepared formulations. Drug permeation studies revealed that P21 (EC:PVP K30::3:1) exhibited the highest drug release in 24 h (99.82%) followed by diffusion mechanism as evidenced by Higuchi model ($r^2=0.9-0.99$). The hydrophilic and hydrophobic polymers in combination showed sufficient potential for the development of transdermal drug delivery system of captopril.

Key words: Captopril, Transdermal drug delivery system, Matrix film, Hypertension, Goat skin.

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Total Pages: 06

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