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ORIGINAL ARTICLE

FORMULATION AND EVALUATION OF HYDROGEL TRANSDERMAL PATCH OF A SELECTED NSAID

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Abstract

Background and Objectives: Transdermal drug delivery system overcomes the difficulties associated with oral drug delivery and improves therapeutic efficacy and safety of drugs, as it is site-specific due to temporal placement of dosage form on the body that reduces both size and number of doses. **Methods:** In the present study effort was taken to formulate and evaluate Hydrogel based Transdermal patch of a selected NSAID. Nine formulations of matrix type hydrogel transdermal patches of Aceclofenac were prepared. **Results:** The pre formulation results obtained for all formulations were satisfactory. The drug- excipients compatibility study was also performed using FTIR and the results established that, there is no significant compatibility in drug and excipients. The physico –chemical properties such as physical appearance, thickness, weight variation, tensile strength, surface pH, swellability, water vapour transmission rate, percentage moisture uptake and folding endurance were evaluated. **Conclusion:** The in-vitro drug permeation studies of the prepared patches were conducted and finally the optimized formulation was selected.

Keywords: Aceclofenac, Poly Vinyl Alcohol, Chitosan, solvent casting method, swellability, In-vitro drug permeation study.