ABSTRACT
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Title of Thesis: HPLC analysis of dexamethasone in topical preparations

The subject of this paper is the HPLC evaluation of dexamethasone in topical preparations. Dexamethasone was analysed by the use of a C-18 column, a water: acetonitrile (40:60) mobile phase, flow rate of 1,0 ml/min and a UV detector set at 239 nm. An internal standard was used for quantitative determination. A calibration curve was constructed and verified, by means of which the concentration of dexamethasone in selected topical preparations was determined. A standard calibration curve was constructed and the determination of dexamethasone in these topical preparations was tested. Considering the obtained results, the application of a calibration curve in the relevant ointment base from which dexamethasone is quantified, is preferable. A rigorous evaluation for the generalisation of this conclusion is required.

The above developed method was validated and a test for its efficacy was evaluated. By verifying the validation parameters: precision, accuracy, selectiveness, linearity, detection limit, quantitative limit and robustness, the suitability of the selected method was established. The determination of retention times and the calculations of chromatographic resolution and peak symmetry factor ensures the eligibility of the system under given chromatographic conditions. The proposed HPLC evaluation is applicable for the quantitative determination of dexamethason in topical preparations.