Spectrophotometric and HPLC Methods for the Determination of Tizanidine Hydrochloride in Pharmaceutical Dosage Forms.

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Abstract

A simple, accurate, economical and reproducible UV spectrophotometric and HPLC method for simultaneous estimation of two component drug mixture of tizanidine and valdecoxib in combined tablet dosage form have been developed. The first developed method employs multiwavelength spectroscopy using six mixed standards and 229.0 nm and 241.0 nm as two wavelengths for estimation. Linearity was observed in concentration range of 0.5-3.0 µg/ml of tizanidine and 5-30 µg/ml of valdecoxib. Developed HPLC method is reverse phase chromatographic method using Hypersil C18 column and methanol:acetonitrile:phosphate buffer in ratio of 30:60:10 pH 5.0 as mobile phase. For HPLC method, linearity was observed in concentration range of 2-10 µg/ml of tizanidine and 20-100 µg/ml of valdecoxib. Results of analysis were validated statistically and by recovery studies.