UV-Spectrophotometric Estimation of Drotaverine Hydrochloride by Derivative Method in Pharmaceutical Dosage Form

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Abstract : The objective of the study was to develop a UV derivative spectrophotometric i.e.First and second order derivative methods for the determination of drotaverine hydrochloride in pharmaceutical dosage form by using methanol as a solvent. The method was further validated by ICH guidelines. The proposed derivative methods involve the measurement of absorbance at 266 nm for first order and254.7nm for second derivative for the estimation of drotaverine hydrochloride respectively. The linearity of the proposed method was found in the concentration range of 5 to 50 µg /ml (r^2= 0.9999) for first and second order derivative methods respectively. The percentage mean recovery was found to be 100.045 % for first order derivative and 100.02% for second order derivatives methods respectively. The methods were also statistically validated for its linearity, accuracy and precision. Both intra and inter day variations showed less percentage (%) RSD values indicating high grade of precision of this methods.

Keywords : UV spectrophotometric estimation, derivative method, drotaverine hydrochloride, methanol.

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