Development & Validation of UV-Spectroscopic & RP-HPLC Method for Simultaneous Estimation of Levosulpiride & Rabeprazole Sodium in bulk and tablet dosage form

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A simple, accurate and precise UV Spectrophotometric methods and RP-HPLC method have been developed and validated for simultaneous estimation of Levosulpiride and Rabeprazole Sodium in bulk and tablet dosage form. Two UV spectrophotometric methods have been developed, simultaneous equation method and first order derivative method. In simultaneous equation method determination of both drug were carried out at 232 nm (λmax of Levosulpiride) and 284 nm (λmax of Rabeprazole Sodium).In first order derivative method determination of Levosulpiride was carried out at 247 nm (ZCP of Rabeprazole Sodium) and Rabeprazole Sodium was carried out at 291.60 nm (ZCP of Levosulpiride) and the linearity lies between 5-30 µg/ml for Levosulpiride and 2-12 µg/ml for Rabeprazole Sodium for two method. In RP-HPLC method for simultaneous estimation of Levosulpiride and Rabeprazole Sodium separation was achieved on a Phenomenex luna ODS C_{18} (250mm X 4.6 mm i.d., 5 µm particle size) with an mobile phase acetonitrile: 50 mM phosphate buffer pH 5 (adjusted with Sodium hydroxide) in the ratio of 55:45 v/v. The mobile phase at a flow rate of 1.0 ml/min, Injection volume 20µl and detection wavelength was kept at 288 nm. The retention time Levosulpiride and Rabeprazole Sodium was 2.31±0.1min and 3.85 ±0.1min, respectively. The proposed conditions were successfully applied

for the simultaneous estimation of both drugs in commercial tablet preparation. The results of the analysis have been validated statistically and by recovery studies.
Key words: UV spectrophotometric, RP-HPLC, Simultaneous equation method, First order derivative.