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A New Stability Indicating RP-HPLC Method for Determination of Chlorthalidone, Telmisartan and Cilnidipine in Bulk and Tablet Dosage Form

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Abstract : In present study, accurate, precise, rapid and sensitive stability indicting HPLC-UV method has been established for quantification of Telmisartan, Cilnidipine and Chlorthalidone simultaneously in Tablet and bulk. Telmisartan, Cilnidipine and Chlorthalidone were resoluted on Sunsil C_{18} column (4.6mmx250mm; 5µm) using mobile phase containing Acetonitrile and Potassium dihydrogen phosphate in 50:50(v/v) ratio with flow rate of 1ml/min at 238 nm. Concentrations were linear over the range of 40-120 µg/ml for Telmisartan, 10-30 µg/ml for Cilnidipine and 6.25-18.75 µg/ml for Chlorthalidone. The percentage recovery was found to be 99.70-100.51% for Telmisartan, 98.41-100.49% for Cilnidipine and 99.34-100.48% for Chlorthalidone. % RSD for peak area was 0.069% for Telmisartan, 0.058% for Cilnidipine and 0.057% for Chlorthalidone shows that the proposed method is precise. Force-degradation studies have not shown any observable change in the results and hence the proposed method is stability indicating and hence the method is suitable for routine analysis of Telmisartan, Cilnidipine and Chlorthalidone in bulk and tablet dosage form.
Keywords : HPLC, Telmisartan, Cilnidipine, Chlorthalidone, Acetonitrile, Potassium dihydrogen phosphate.

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