

TABLE 2: ASSAY OF TERAZOSIN IN TABLETS

Sample	Labelled amount (mg/ml)	Amount obtained (mg) by the proposed method	Percent recovery
1.	1.0	0.99	100.04±0.4
2.	1.0	0.99	100.25±0.2
3.	1.0	0.98	99.72±0.5

method have been given in Table 2. Interference studies revealed that the excipients and additives commonly present in tablets did not have any effect in the determination.

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Simultaneous Estimation of Losartan Potassium And Hydrochlorthiazide in Combination

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A simple and accurate method for the Simultaneous estimation of losartan potassium (LP) and hydrochlorthiazide (HZ) has been developed. The method employs simultaneous equations to estimate these drugs. In methanol, losartan potassium and hydrochlorthiazide showed maximum absorbance at 236 and 270 nm respectively. Losartan potassium and hydrochlorthiazide obeyed Beer Lambert's law in the concentration range from 2-20 µg/ml and 1-50 µg/ml, respectively. The results of analysis have been validated statistically and by recovery studies.

HZ is a diuretic drug¹. Chemically it is 6-chloro-3,4-dihydro-2H-1,2,4-benzodiazine-7-sulphonamide-1,1-dioxide. It is official in IP, BP and USP. LP is an angiotensin II receptor antagonist². Chemically the drug is 2-butyl-4-chloro-[(2'-(1H-tetrazol-5-yl) [1,1'-biphenyl]-4-yl)methyl]-1H-imidazole-5-methanol. A few analytical methods³⁻⁷ were

*For correspondence

developed for the individual estimation of LP and HZ. One RP-HPLC⁸ was reported for simultaneous estimation. The present report describes a precise method for their estimation using a Jasco[®] UV-VIS Spectrophotometer.

A Jasco[®] double beam Spectrophotometer model V-530 with matched quartz cells corresponding to 10 mm

TABLE 1: ESTIMATION LOSARTAN POTASSIUM AND HYDROCHLORTHIAZIDE FORMULATIONS

Drug	Amount (mg/tab)		% Label Claim*	% Recovery*
	Labeled	Found*		
HZ	12.5	12.29±0.05	98.32±0.52	99.78±0.12
LP	50	49.58±0.15	99.16±0.71	100.10±0.09

*Mean ± S.D of 6 observations

path length used for the all the measurements. LP and HZ were obtained from Cipla Ltd, Mumbai and Torrent Pharmaceuticals Ltd. Ahmedabad, respectively. Methanol was obtained from S.D. Fine Chemicals Ltd., Boisar.

Standard stock solutions (1 mg/ml) of LP and HZ were prepared by dissolving 100 mg of each in methanol in a 100 ml volumetric flask. Further dilution were made to get 1 µg/ml of HZ and 4 µg/ml of LP. The two solutions were scanned separately and λ_{max} for LP and HZ was found to be 236 and 270 nm, respectively. From the standard stock solution, further dilutions were made to get 4-20 µg/ml of LP and 1-5 µg/ml of HZ and these solutions were scanned at two fixed wavelengths to obtain the absorbances. The calibration graphs were obtained by plotting concentration versus absorbance of each drug. The molar absorptivity values were 0.05359 at λ_1 and 0.011637 at λ_2 for LP and 0.007776 at λ_1 and 0.094586 at λ_2 for HZ.

Twenty tablets were weighed and ground to a fine powder. A quantity of powder equivalent to 10 mg of HZ and 40 mg of LP was accurately weighed and transferred to a 100 ml volumetric flask and extracted with methanol. It is filtered and the volume was made up to 100 ml with methanol. The resulting solution was further diluted to get concentration of 12 µg/ml of LP and 4 µg/ml of HZ. Absorbances of these solutions were measured at 236 nm and 270 nm for both drugs. The absorbance were applied with the simultaneous equation and the amount was estimated. The results and the analysis results of the tablet formulations are shown in the Table 1. Recovery studies were carried out six times and the mean and its standard deviation were calculated.

A simple UV spectrophotometric method was developed for the estimation of LP and HZ using simultaneous equation method. The overlay spectra of LP and HZ are shown in the fig. 1. Molar absorptivities were calculated. The slope and intercept values of LP was found to be 0.0528 and 0.0074 and for HZ was found to be 0.0890 and 0.0060. The values of standard deviation and recovery studies indicate the reproducibility and reliability of this method. It is concluded that the method can reported here perhaps be employed for rapid and routine simulta-

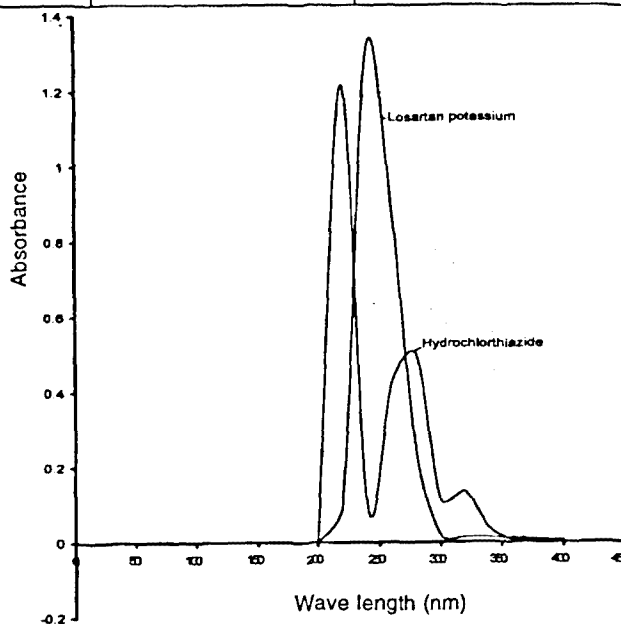


Fig. 1: Overlain Spectra of Losartan Potassium and Hydrochlorothiazide

neous estimation of these two drugs in Pharmaceutical dosage forms.

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