The present method is a high performance liquid chromatographic method to determine telmisartan from its formulation. Various experiments were carried out to establish the method. The mobile phase wash Acetonitrile and methanol 60:40and was found to be ideal for the estimation of telmisartan. The elution followed was (RT-1.92 min). The mean recovery of telmisartan was (100.2%).The values of percent recovery and standard deviation show that the proposed method is reproducible, accurate and precise.

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Reverse Phase High Performance Liquid Chromatographic Determination of Zidovudine and Lamivudine in Tablet Dosage Form.

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A simple, economical, fast and precise reverse phase high performance liquid chromatographic method has been developed for the simultaneous determination of zidovudine and lamivudine in from tablet dosage form. A BDS Hypersil C18 (5 micron 25 cm×4.6 mm) column from Thermo in isocratic mode with mobile phase o-phosphoric acid:methanol (70:30) buffered and adjusted to pH 5 by using triethylamine. The flow rate is 1.4 ml/min and effluent is monitored at 220 nm.

Zidovudine is 1-(3-azido-2,3-dideoxy-β-D-ribofuranosyl)-5-methylpyrimidine-2,4(1H,3H)-dione and lamivudine (2R-cis)-4-amino-1(2-hydroxy methyl)-1,3-oxathiolon-5-yl) 2-(1H)-pyrimidinone (-)-2'-deoxy-3'-thiacytidine. The combination is used in the treatment of human immuno deficiency virus infector HIV, the virus that causes AIDS[1-4]. Literature survey revealed that estimation of zidovudine and lamivudine by the USP method involved the determination of zidovudine by titrimetry and lamivudine in urine by HPLC[5]. Whereas, the proposed method describes the simultaneous determination of zidovudine and lamivudine by HPLC, which is simple, precise, rapid and selective.

High performance liquid chromatograph (Milton and Roy) equipped with a UV detector Spectrometer 3100, variable wavelength CM 4000 pump and chromatograph I/F module form Indetech instrument, Injector is manual, 20 µl loop and a Shimadzu UV-1201 Spectrophotometer were used.

Standard zidovudine from Strides Arco Laboratories Limited, Mumbai and lamivudine from Cadila Pharmaceuticals, Ahmedabad were procured. The combination formulations have been obtained from local drug stores. Methanol HPLC grade, water HPLC grade were used in this investigation. Potassium dihydrogen phosphate (6.8 g) was dissolved in water (1 l). Buffer (650 ml) and methanol (350 ml) were mixed and filtered through 45 µ filter paper and sonicated. Separate calibration curve was obtained. Solutions were prepared by taking varying concentrations of zidovudine (10 to 50 µg) and lamivudine (10 to 30 µg). Plotting graph area *vs.* concentration allowed checking linearity of detector response.

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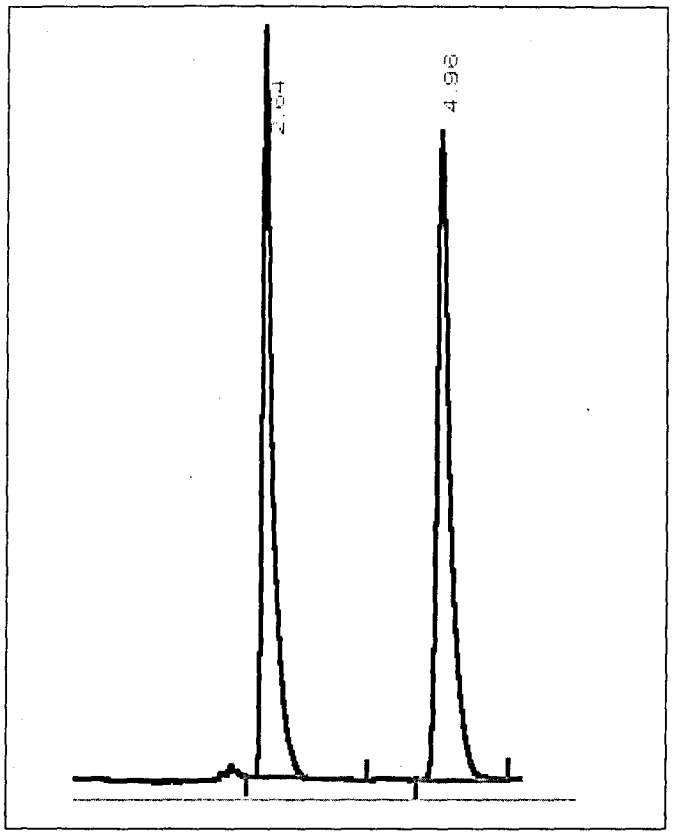

Fig. 1: A typical chromatogram of zidovudine and lamivudine

The flow rate was maintained at 1.4 ml/min. Temperature of the column was ambient. The average pressure was maintained at 2125 psi and the effluent was monitored at 221 nm. The mobile phase used was buffer and methanol (65:35). Calibration curves were constructed for zidovudine and lamivudine by plotting the ratio of peak area of drug i.e. (y axis) against the amount of drug (concentration in μg/ml x axis).

Twenty tablets, each of combined dosage were accurately weighed and powdered. A fine composite quantity equivalent to 300 μg of zidovudine and 150 μg of lamivudine taken dissolved in 100 ml of mobile phase and diluted to obtain final concentration 30 μg of zidovudine and 15 μg of lamivudine.

To study the accuracy, reproducibility and precision of the proposed method recovery experiments were carried out. A fixed amount of the pre-analyzed sample was taken and standard drug was added at three different levels. Each level was repeated at least 5 times. The summaries of recovery studies are reported in Tables 1 and 2.

The present study comprises a high performance liquid chromatography method to determine zidovudine and lamivudine from tablet dosage forms. Various experiments were carried out to separate them and mobile phase, bearing phosphate buffer and methanol in proportion of (65:35), was found to be ideal for the separation. The elution was in the following order lamivudine (RT/-2.64 min) zidovudine (RT/4.96). The mean recoveries of zidovudine and lamivudine were 100%. The values of percent recovery and standard deviation indicate that the method is accurate, reproducible and precise. The summaries of final results are illustrated in Tables 3.

TABLE 1: RECOVERY OF ZIDOVUDINE

Label claim (mg)	Amount of standard added (mg)	Amount recovered (mg)	% of recovery
300	0	299.8	99.9
300	100	400.4	100.0
300	200	500.5	100.0
300	300	600.6	100.0

TABLE 2: RECOVERY OF LAMIVUDINE

Label claim (mg)	Amount of standard added (mg)	Amount recovered (mg)	% of recovery
150	0	150.4	100.0
150	50	199.6	99.8
150	100	249.7	99.9
150	150	300.3	100.0

TABLE 3: ANALYSIS OF ZIDOVUDINE AND LAMIVUDINE TABLETS

Name of company	Amount found mg/tablet ± SD.	%RSD.	Percent of assay
ZIDOVUDINE			
GLAXO	300.2±0.37	0.13	100.1
CIPLA	300.4±0.46	0.23	100.1
LAMIVUDINE			
GLAXO	150.4±0.86	0.34	100.3
CIPLA	150.7±0.85	0.61	100.4

A linear relationship was obtained for zidovudine 10-50 µg/ml. For lamivudine it was obtained at 10-30 µg/ml. Calibration curves could be represented by the following Eqns. $Y_{(zidovudine)}=0.0413X+0.0756$, (r=0.999) and $Y_{(lamivudine)}=0.0433X+0.0863$, (r=0.999). These equations were used for the determination of zidovudine and lamivudine from tablets.

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High Performance Thin Layer Chromatographic Method for Estimation of Moxifloxacin in Tablet Dosage Form.

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A new simple, sensitive, specific and precise high performance thin layer chromatographic method has been developed for estimation of moxifloxacin in its tablet formulation (400 mg). In this method, standard solutions and sample solution of moxifloxacin were applied on precoated silica gel G60F_{254} TLC plate and developed using n- butanol:methanol:ammonia (4:4:2 v/v) as mobile phase.

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