of necrosis and fatty infiltration (fig. 1d). Further investigations on the isolation and characterization of the active constituents of the above extracts are in progress.

ACKNOWLEDGEMENTS

The authors are very grateful to Prof. B. Abdul Rahiman, Chairman, Department of Biotechnology, Kuvempu University and Prof. Y. N. Manohara, Principal, National College of Pharmacy, Shimoga, for providing necessary facilities to carry out this work. We are also thankful to B. K. Manjunath, Jagadeesh singh, and S. M. Vidyal for their co-operation and moral support.

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RP-HPLC Determination of Telmisartan in Tablet Dosage Forms

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Accepted 6 February 2005
Revised 11 August 2004
Received 31 October 2003

A simple fast and precise reverse phase high performance liquid chromatographic method was developed for the determination of telmisartan from tablet dosage forms. A Hypersil C18 BDS (250 mm x 4.6 mm) from Thermo. in isocratic mode, mobile phase acetonitrile:methanol (60:40) was used. The flow rate was 1.2 ml/min, and eluent monitored at 245 nm.

Telmisartan is 3-N'-methyl-2-benzimidazole derivative of N'-4-(2-carboxyphenyl phenyl)-2-propyl, 4-methyl benzimidazole. It is obtained as a white crystalline powder with m.p. 221-223°. It is a new angiotensin II receptor antagonist for the treatment of essential hypertension. It is useful in the treatment of mild to moderate hypertension, well tolerated with a lower incidence of cough than ACE inhibitors. It is marketed as 40 mg tablets, taken once daily and in cases where target blood pressure is not achieved dosage could be increased to a maximum of 80 mg once daily. A Milton Roy HPLC system consist of pump CM4000, spectro monitor 3100 of variable wave length detector, chromatography IF module from Indotech instrument, auto injector A1000 (manual) with 20 micro liter loop and Shimadzu UV-1201 Spectro photometer were used.

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Fig. 1: A typical chromatogram of telmisartan

Standard telmisartan drug was procured from Glenmark Pharma Limited, Nasik and tablet formulations were purchased from local drug stores. Acetonitrile HPLC grade and methanol HPLC grade have been purchased from Merck, Mumbai, and were used in the ratio of 60:40. Acetonitrile of HPLC grade (600 ml) and 400 ml of methanol of HPLC grade were taken, mixed, sonicated for 15 min and filtered through 4.5 micron filter paper. The filtered solvent system was further sonicated for an additional 5 min.

Fifty milligrams of telmisartan was taken in a 50 ml standard volumetric flask and dissolved in the mobile phase using a sonicator. The so prepared stock solution was further diluted to μg/ml concentration with the mobile phase. Linearity of the method was investigated by serially diluting the stock solutions to give a concentration range of 4 to 12 μg/ml. Calibration curve was constructed by plotting peak area ratio against concentration. The flow rate was maintained at 1.2 ml/min. Temperature of the column was kept at ambient, the average pressure was at 1225 psi and the effluent were monitored at 245 nm The mobile phase used was acetonitrile and methanol (60:40).

Assay of two different marketed products with brand names Telma (40 mg), Healtheon-Division of Glenmark Pharmaceuticals Ltd., and Tetan (40 mg), Synx-A Specialities Division of Alembic, were performed. Twenty tablets of the above two different companies, marketed products were separately weighed and powdered. The powder equivalent to 40 mg of the drug (347.8 mg) was dissolved to obtain 10 μg/ml concentrations. Twenty microlitres of sample preparation were injected into injector of liquid chromatograph. A typical chromatographic peak was shown in fig. 1. From the peak response of telmisartan the amount of drug in sample was computed (Table 1).

To study the accuracy, reproducibility and the precision of the proposed method, recovery experiments were carried out. A fixed amount of pre-analyzed sample was taken and standard drug was added at three different concentrations and each level was repeated at least 4 times (Table 2).

<table>
<thead>
<tr>
<th>TABLE 1: ANALYSIS OF TABLETS</th>
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<tbody>
<tr>
<td>Name of company</td>
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<tr>
<td>Telma 1</td>
</tr>
<tr>
<td>Tetan 1</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>TABLE 2: RECOVERY STUDIES WITH TABLETS</th>
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<tr>
<td>Label claim (mg)</td>
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<tr>
<td>-----------------</td>
</tr>
<tr>
<td>Telma 40</td>
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</tbody>
</table>

Telma 40 manufactured by Glenmark Pharmaceuticals Ltd, Nasik and Tetan 40 manufactured by Alembic Limited, Vadodara

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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 60:40 and 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.

ACKNOWLEDGEMENTS

The authors thank Dr. F.V. Manvi, Principal, K. L. E. S’s College of Pharmacy, Belgaum and Prof. A.D. Taranalli, Vice-Principal for the necessary facilities and encouragement.

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

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Accepted 6 February 2005  
Revised 20 August 2004  
Received 13 October 2003

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 (1')-2'-deoxy-3'-thiacytidine. The combination is used in the treatment of human immuno deficiency virus infector HIV, the virus that causes AIDS. 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. 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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