

Analytical Method for Estimation of Losartan by using UV-Spectrophotometer

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Abstract

A simple, accurate, and economical least time consuming method for losartan method has been developed using UV spectrophotometer. The assay is based on the UV absorbance maxima at about wavelength of 234 nm using distilled water as solvent. Six sample of drug were dissolved in distilled water to produce solutions containing different brands of losartan. The absorbance of these six drugs were measured at 234 nm against the solvent blank and the assay were calculated by using the absorbance of active. This method can be used for the quality control QC quantitation and analysis of losartan in active and tablet formulations.

Index terms— assay, losartan, UV spectrophotometer.

In literature, several methods have been described for analysis of Losartan potassium in API and formulations. Various methods are HPLC based [1,2], (CE) capillary electrophoresis [3], voltametric determination [4] and some are spectrophotometric [5][6][7].

But there is no single analytical method have been reported for determination of losartan as simple and economical like this method. Because I have used simple water for analysis of these all brands and in very less time period I have analysed the drugs. We have done this type of assay for other drugs which will be useful for small scale laboratory and where expensive. Author: Faculty of Pharmacy, Jinnah University for Women, Karachi, Pakistan. e-mails: safila117@yahoo.com, safila117@gmail.com instrument not available we can easily find out these drugs in a very short period of time. The serial number as an identification of purchased brands are given in Table 1. Using 20 tablets of six different brand of losartan from the marketed sample were weighed and average mean were calculated. By calculating the average weighed powder of each brand equivalent to 10 mg of losartan was transferred in a volumetric flask containing small water then solution was sonicated for about 5 min and then make up volume upto 100 ml with water. Same procedure was repeat for all brands for preparation of solutions.

1 e) Procedure

After preparation of standard and sample solutions of different brands, strength of all solutions 100 ppm in 100 ml. By using 234 nm wavelength absorbance noted and calculate % assay of each drug.

2 III.

3 Results and Discussions

Pharmaceutical assay was carried out by using spectrophotometer on six brands of losartan tablets.

4 Conclusion

A simple, rapid, and economical UV method has been established for determination of losartan alone or in their formulations. This method has several advantages, including simple sample preparation and rapid analysis. It is suitable for analysis of antihypertensive agent losartan in their formulations in a single run, in contrast

4 CONCLUSION

41 with previous published methods. This makes the method suitable for routine analysis in QC quality-control laboratories.¹



Figure 1:

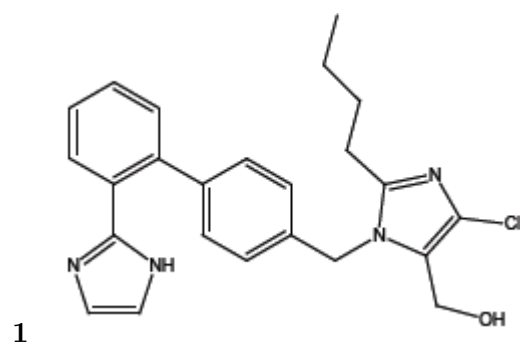


Figure 2: Figure 1 :

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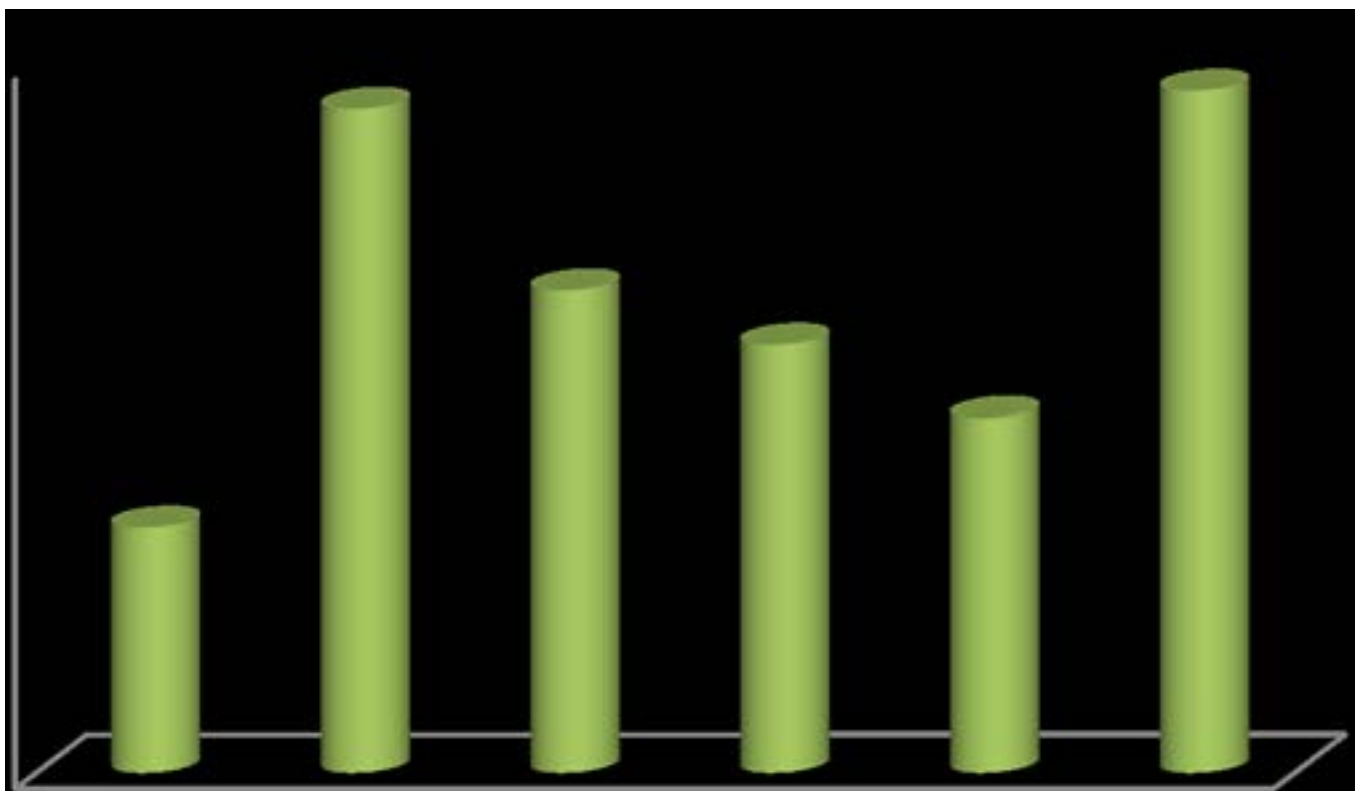


Figure 3:

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Figure 4: Table - 1

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| Brand Name | Code | Average wt of tablet mg | Wt for 100 ppm | Absorbance at 234 nm | % assay |
|------------|------|-------------------------|----------------|----------------------|----------|
| AZA | LSR1 | 0.16 | 0.016 | 2.627 | 101.0385 |
| cozaar | LSR2 | 0.156 | 0.015 | 2.673 | 102.8077 |
| losaan | LSR3 | 0.153 | 0.015 | 2.653 | 102.0385 |
| zostat | LSR4 | 0.18 | 0.018 | 2.647 | 101.8077 |
| losark | LSR5 | 0.234 | 0.023 | 2.639 | 101.5 |
| eziday | LSR6 | 0.175 | 0.017 | 2.675 | 102.8846 |

Figure 5: Table 1 :

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