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**Degree :** M.Sc.



**Title of Thesis:** Analysis of Selected C.V.S. Acting Drugs

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**Abstract :**

This thesis is concerned with the analysis of four selected drugs of the CVS acting drugs namely Amlodipine besylate, Atorvastatin calcium, Valsartan and Hydrochlorothiazide. In this work, different analytical techniques were applied for the simultaneous quantitative determination of Amlodipine besylate and Atorvastatin calcium in their laboratory prepared mixtures and in their tablet dosage form using spectrophotometric methods. Stability study was carried out on Amlodipine besylate and Atorvastatin calcium and stability indicating methods were developed for the determination of both drugs in the presence of their acidic degradation products using chemometric methods. Different analytical techniques were applied for the simultaneous quantitative determination of Amlodipine besylate, Valsartan and Hydrochlorothiazide in their laboratory prepared mixtures and in their tablet dosage form using spectrophotometric, chemometric and chromatographic methods. The aim of the present work was the development of analytical procedures which would be feasible, sensitive and specific for the determination of the studied drugs in their laboratory prepared mixtures and their pharmaceutical dosage forms and Amlodipine besylate and Atorvastatin calcium in the presence of their acidic degradation products.

**Keywords:**

Amlodipine besylate; Atorvastatin calcium; Valsartan; Hydrochlorothiazide; Spectrophotometry; Chemometry and chromatography.