

**Abstract Type : Poster**

**Abstract Submission No. : PO-1585**

**Examination of Angiotensin-Converting Enzyme Inhibitory property of Selected Indian Medicinal Plants.**

**Sandeep Kumar Jain**

Department of Pharma, Mylan Laboratories Limited, India

**Objectives:**

Angiotensin converting enzyme (ACE) inhibitors are used widely in the treatment of hypertension and heart failure. These inhibitors such as captopril and enalapril are derived from natural products. The purpose of the present investigation was to evaluate ACE inhibition activity of three Indian medicinal plants.

**Methods:**

In the present study three plants used in Ayurvedic Medicinal plant i.e. *Asparagus racemosus*, *Centratherrum anthelminticum* and *Boerhaavia diffusa* have been investigated for their angiotensin converting enzyme (ACE) inhibitory activity. They were selected on the basis of their usage as antihypertensive & diuretics. Dried powdered plant material was extracted with mix solution of water and ethanol in ultrasonic bath. The extracts were filtered and concentrated in vacuum except for the water extracts, which were freeze-dried. Test solutions were made by dissolving extract in assay buffer, corresponding to a final concentration of crude plant extract in 5 ml test volume. Enzyme assay was performed by determining the hydrolysis rate of substrate, hippuryl-L-histidyl-L-leucine (HHL) by HPLC method.

**Results:** Ethanolic extract of *Boerhaavia diffusa* showed highest ACE percentage inhibition, with 88.46 at the screened concentration of 1 mg/mL. Ethanolic extracts of *Asparagus racemosus* and *Centratherrum anthelminticum* showed ACE percentage inhibition 73.28 and 69.32 respectively.

**Conclusions:**

In this study, we introduced three medicinal plants with ACE inhibition activity. Despite the highest ACE inhibition *Boerhaavia diffusa* was found due to its steroidal contents.