



Inhibitory effect of *Ziziphora tenuior* , *Allium Akaka* , *Allium haemanthoides* and *Allium hirtifolium* extracts on activity of Angiotensin converting enzyme

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Abstract:

Essential hypertension is the most common cardiovascular disorders and about 26% of people are affected in the world. On the other hand high blood pressure is a risk factor for stroke, heart disease, peripheral vascular disease and heart failure. There are several classes of pharmacological agents which have been used in the treatment of hypertension. Angiotensin I converting enzyme (ACE) Inhibitors are the important anti-hypertensive drugs. ACE catalyzes angiotensin I to angiotensin II and inactivates bradykinin. The synthetic ACE inhibitors are used widely to treat cardiovascular disorders. Because of their adverse effects such as cough, allergic reactions and skin rashes investigation for new natural sources could be helpful. ACE inhibitory activity was measured according to the methods of Cushman and Cheung with some modifications. Hydroalcoholic extract of *Ziziphora tenuior*, *Allium akaka*, *Allium haemanthoides*, *Allium hirtifolium* were used. Captopril was used as positive control. The most inhibitory activity on ACE was as follow: *Z. tenuior* > *A. akaka* > *A. haemanthoides* > *A. hirtifolium*. The IC₅₀ value of hydroalcoholic extract of *Z. tenuior* was 491 µg/ml. The IC₅₀ value of *A. akaka* and *A. haemanthoides* and *A. hirtifolium* were 532 µg/ml and 615 µg/ml and 740 µg/ml.

Keyword: Angiotensin converting enzyme inhibitor, Extract, *Ziziphora tenuior*, *Allium akaka*, *Allium haemanthoides*, *Allium hirtifolium*