

## ABSTRACT

The aerial parts of *Leucas cephalotes* were extracted in n-hexane, chloroform and ethyl acetate respectively, while seeds of *Juglans regia* were extracted in n-hexane and ethyl acetate. Column chromatography of the n-hexane fraction of *J. regia* yielded eight fractions. Total phenolic contents were calculated using FC reagents while, DPPH scavenging, FRAP and acetylcholine esterase (AChE) inhibition potential of all extracts/fraction was evaluated according to their respective in-vitro models. Ethyl acetate extract of *L. cephalotes* contained highest total phenols ( $864.5 \pm 1.2$  mg GAE/g of extract) with  $83.3 \pm 1.1\%$  DPPH activity and  $IC_{50}$  value  $271 \pm 6$   $\mu$ g/ml. The column fractions of *J. regia* (JRH-8) demonstrated significant antiradical activity ( $80.8 \pm 1.1\%$ ,  $IC_{50} = 283 \pm 4$   $\mu$ g/ml). All extracts/fractions showed remarkable FRAP activity. The n-hexane extracts of both plants exhibited maximum enzyme inhibition activity  $78.7 \pm 1.1\%$  ( $IC_{50} = 175 \pm 4$   $\mu$ g) and  $73.5 \pm 1.5\%$  ( $IC_{50} = 108 \pm 3$   $\mu$ g) for *J. regia* and *L. cephalotes* respectively. Fifteen Different thiozolidinone derivatives were synthesized. Synthesis of thiozolidinone derivatives were carried out by using  $CS_2$ , triethyl amine and different primary amines. Dithiocarbamate formed were used immediately washing with diethylether. These compounds were prepared because of their pharmaceutical importance. The thiozolidinone derivatives show, antidiabetic, anticancer, antiarthritis etc, activities,