

ABSTRACT

Many diseases are related with inflammation. Treatments option for inflammation are NSAIDs and glucocorticoids drugs. However that drugs have many side effects. Attempts to seek alternative herbal medicine to treat inflammation with minimal side effects continue. *Curcuma zedoaria* is a plant that has many health benefits. It is often used for treatment in various countries in Asia. This study was aimed to investigate the anti-inflammatory effect of aqueous extract of *C. zedoria* rhizome.

This was an experimental laboratories research. Independent variables in this research were carraginan and aqueous extract from *C. zedoaria* rhizomes, while the dependent variable is the volume of rat hind paw. This study used 25 male wistar rats that were divided into 5 groups (control, Diclofenac, *C. zedoaria* extract 0.5 g/Kg BW, 1 g/Kg BW and 1.5 g/Kg BW). Rats were weighed and the initial volume of its left paw measured using plethysmometer. Subsequently the extract was administered orally. One hour after treatment, left hind paw of rat was induced by carraginan to stimulate inflammation. Hind paw volume was observed over time using plethysmometer. Collected data were analyzed statistically using one-way anova.

This study demonstrated that there was no significant difference of incremental volume of hind paw ($p>0.05$). It was concluded that aqueous extract of *C. zedoaria* rhizome had no anti-inflammatory activity.

Keywords: *Curcuma zedoaria*, rhizome extract, inflammation, Diclofenac