

THE CAPABILITY OF *Cissus quadrangularis* EXTRACT TO MAINTAIN HOMEOSTASIS BLOOD CALCIUM LEVEL AS FRACTURE FEMUR THERAPY ON OVARIECTOMIZED RAT (*Rattus norvegicus*)

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ABSTRACT

The aim of this research was to study the difference of homeostasis blood calcium level in fracture femur between osteoporosis bone comparing with normal bone and the capability of *Cissus quadrangularis* (CQ) extraction as fracture femur therapy to maintain homeostasis blood calcium level on ovariectomized rats (*Rattus norvegicus*). Animal used in this research were 24 female rats, that randomly separated into four groups T0(-) was control negative group without ovariectomy treatment, T0 (+) was control positive group, T1 was administered with 5.4 mg/kg BW raloxifene, T2 was administered with 750 mg/kg BW CQ extraction with six replication in each treatment. In tenth day ovariectomy surgery conducted, then in eighth week osteotomy surgery performed. The blood serum sample was examined in two time period, three rats examined in two weeks after osteotomy conducted and three rats in six weeks after osteotomy performed. Examination used three different rats for each treatment in second week and sixth week time period. The result showed there was no significant difference in the homeostasis blood calcium level between normal bone compared with osteoporosis bone ($p>0.05$). *Cissus quadrangularis* plant extract proved have the capability to maintain blood calcium homeostasis with no significant difference result ($p>0.05$) compared with raloxifen treatment group.

Keywords: rat, fracture femur, ovariectomy, *Cissus quadrangularis* extract, homeostasis blood calcium level

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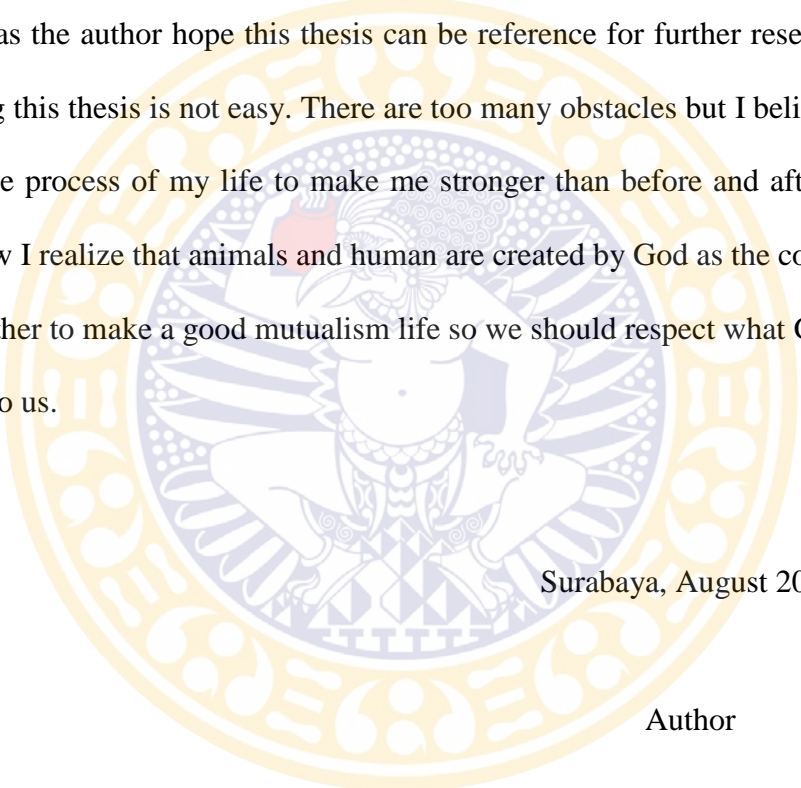
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