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Thesis, 2025

ANTIHYPERURICEMIA ACTIVITY TEST OF ETHANOL EXTRACT OF
JERUJU FRUIT (*Acanthus ilicifolius L*) AGAINST MALE MICE (*Mus
musculus*)

ABSTRACT

Background: Hyperuricemia is a condition characterized by elevated levels of uric acid in the blood, which can lead to complications such as gout, kidney stones, and kidney dysfunction. The use of allopurinol as an antihyperuricemic drug has significant side effects, necessitating the exploration of natural alternatives. The jeruju plant (*Acanthus ilicifolius L*) is known to contain bioactive compounds such as flavonoids, alkaloids, saponins, and tannins, which have potential as antihyperuricemic agents.

Research Objective: To determine the antihyperuricemic activity of ethanol extract from jeruju fruit (*Acanthus ilicifolius L*) and the effective dose in reducing uric acid levels in male mice (*Mus musculus*) induced by chicken liver juice and potassium oxonate.

Research Method: This research method is an experimental laboratory method using qualitative phytochemical screening tests and quantitative antihyperuricemic activity tests on male mice (*Mus musculus*). The test animals were divided into five groups, each group further divided into five subgroups, each consisting of five mice, which were treated with Na-CMC (negative control group), allopurinol (positive control group), and jeruju fruit extract at doses of 125 mg/kg BW, 250 mg/kg BW, and 500 mg/kg BW.

Research Results: The phytochemical screening results showed the presence of alkaloids, flavonoids, saponins, and tannins in the jeruju fruit extract. The uric acid level measurement results showed that the jeruju fruit ethanol extract was able to significantly reduce uric acid levels in the blood, especially at a dose of 500 mg/kg BW with a reduction of 86.4%.

Keywords: Hyperuricemia, *Acanthus ilicifolius L*, *Mus musculus*, Phytochemical screening, Uric acid