ANTI-PLASMODIUM ACTIVITY OF ETHANOLIC EXTRACT
KENIKIR (Cosmos caudatus Kunth) IN MICE INDUCED BY
Plasmodium berghei

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ABSTRACT

Cosmos caudatus is a plant that is rich in benefits that are found in Indonesia. This study aims to determine the antiplasmodial activity of ethanol extract of C. caudatus leaves, on mice induced by P. berghei. C. caudatus leaves were extracted using the maceration method with an ethanol solvent. Test mice were divided into 5 groups, positive control group given chloroquine 10 mg/kg bw, negative control, dose 50 mg/kg bw, 100 mg/kg bw, and 200 mg/kg BW. The antiplasmodial activity was assessed by percent inhibition of P. berghei on the 8th day. The highest percentage of inhibition of P. berghei was obtained at a dose of 50 mg/kgbw which was 92.01%, followed by a dose of 100 mg/kgbw at 71.73% while the lowest yield was at a dose of 200 mg/kgbw of 63.24%. The difference in results at each dose can be influenced by hepatotoxic effects and the occurrence of oxidative stress. IC₅₀ results obtained 268,611 mg/kgbw. This research shows that ethanol extract C. caudatus leaf has the highest antiplasmodial activity at low doses.

Keywords: Cosmos caudatus Kunth, antiplasmodial, Plasodium berghei