INTISARI

ASTUTY, AT., 2017, UJI TOKSISITAS SUBKRONIK MINYAK BIJI MAHONI (*Swietenia macrophylla* King.) TERHADAP KADAR AST DAN ALT SERTA GAMBARAN HISTOPATOLOGI ORGAN HATI PADA TIKUS PUTIH (*Rattus norvegicus*), SKRIPSI, FAKULTAS FARMASI UNIVERSITAS SETIA BUDI, SURAKARTA.

Biji mahoni lazim digunakan di masyarakat sebagai ramuan tradisional pengobatan diabetes mellitus. Uji toksisitas subkronik ini dilakukan untuk mengetahui tingkat keamanan penggunaan minyak biji mahoni (*Swietenia macrophylla* King.) sebagai antihiperglikemia dan untuk mengetahui efeknya terhadap kadar AST, ALT serta gambaran histopatologi hati pada tikus putih.

Penelitian ini menggunakan 50 tikus jantan dan 50 tikus betina dan dibagi menjadi 5 kelompok, 1 kelompok kontrol dan 4 kelompok perlakuan. Kelompok kontrol diberikan aquadestilata dan kelompok perlakuan diberikan sediaaan minyak biji mahoni dengan dosis 300, 600, 900 mg/kgBB (Bobot Badan) dan kelompok satelit dengan pemberian dosis 900 mg/kgBB. Pemberian minyak biji mahoni dan aquadestilata menggunakan sonde lambung dan diberikan dalam dosis tunggal. Pemeriksaan AST dan ALT diperiksa pada setiap akhir 30 hari pengamatan. Pada hari terakhir pengamatan hewan uji dikorbankan untuk uji histopatologi.

Hasil utama penelitian ini menunjukkan bahwa pemberian minyak biji mahoni dapat mempengaruhi berat badan pada tikus jantan pada dosis 300 dan 600 mg/kgBB dan pada dosis 900 mg/kgBB untuk tikus betina, serta menyebabkan timbulnya edema pada tikus betina pada dosis 900 mg/kgBB. Minyak biji mahoni tidak memberikan pengaruh terhadap kadar AST, ALT serta gambaran histopatologi organ hati.

Kata kunci: uji toksisitas subkronis, minyak biji mahoni, kadar AST dan ALT, histopatologi hati.

ABSTRACT

ASTUTY, AT., 2017, SUB-CHRONIC TOXICITY OF MAHOGANY SEED OIL (*Swietenia macrophylla* King.) IN THEIR EFFECTS TO AST, ALT LEVEL AND LIVER HISTOPATHOLOGY IN ALBINO RAT (*Rattus norvegicus*), THESIS, FACULTY OF PHARMACY, SETIA BUDI UNIVERSITY, SURAKARTA.

Mahogany seeds are commonly used as a traditional herb to treat diabetes mellitus. The research aims to evaluate the safety level of mahogany seeds oil as antihyperglicemic purpose and determine the toxic symptoms of mahogany seed oil towards the level of AST and ALT, also the image of liver histopathology in albino rat.

This research used 50 male and 50 female rats that were divided into 5 group; 1 group of control and 4 treatment groups. The control group was treated by oral administration of aquadestilata and the treatment groups were treated by mahogany seeds oil at dose 300, 600, 900 mg/kg body weight (BW) and satellite group were treated with mahogany seeds oil 900 mg/kgBB. The oil and aquadestilata were given orally by using rat stomach tube in a single dose and was observated for 90 days and additional 28 days for satellite group to observe the reversible effect. The examination of AST and ALT was examined every 30 days of observation. The end of observation the animal was sacrificed for histopathology test.

The result of this research revealed that mahogany seeds oil treatment increase the body weight of male rats in dose 300, 600 mg/kgBW and female rats in dose 900 mg/kgBW, also caused toxic symptoms showed as edema on female rats in dose 900 mg/kgBB. The seed oil of mahogany showed no effects on AST and ALT level, also in their liver histophatologycal image.

Keywords: sub-chronic toxicity, mahogany seeds oil, the level of AST and ALT, liver histopathology.