

INTISARI

WIJAYANTI, S. 2013. UJI TOKSISITAS SUBKRONIK MINYAK ATSIRI KAYU MANIS (*Cinnamomum Burmanni* Nees ex Bl.) TERHADAP KADAR SGPT DAN SGOT SERTA GAMBARAN HISTOPATOLOGI PADA ORGAN HATI TIKUS PUTIH JANTAN GALUR WISTAR, SKRIPSI, FAKULTAS FARMASI UNIVERSITAS SETIA BUDI, SURAKARTA.

Kayu manis mempunyai banyak kandungan kimia (*Cinnamomum burmanni* Nees ex Bl.) diantaranya sinamaldehida, eugenol, safrole yang mempunyai khasiat dalam pengobatan. Saat ini penelitian tentang keamanan minyak atsiri kayu manis masih sangat minim dilakukan. Penelitian ini bertujuan untuk mengetahui toksisitas subkronik minyak atsiri kayu manis (*Cinnamomum burmanni* Nees ex Bl.) terhadap kadar SGPT/SGOT dan gambaran histopatologi organ hati tikus putih jantan serta untuk mengetahui semakin besar dosis semakin besar juga efek toksisitas subkroniknya.

Pengujian toksisitas subkronik menggunakan 20 ekor tikus dan dibagi menjadi 4 kelompok. Masing-masing kelompok diberi perlakuan dosis minyak atsiri, kelompok I : 0,01 ml/200 g BB, kelompok II : 0,02 ml/200 g BB, kelompok III : 0,04 ml/200 g BB dan kelompok IV : aquadest. Data diperoleh dari pemeriksaan kadar SGPT/SGOT pada minggu sebelum perlakuan, minggu 1, 2, 3, 4 dan gambaran histopatologi organ hati pada akhir minggu ke-4. Data hasil pemeriksaan SGPT/SGOT dianalisis dengan menggunakan Paired sample t test dan One Way Annova, untuk data hasil histopatologi dianalisis dengan menggunakan One Way Annova.

Hasil penelitian menunjukkan bahwa minyak atsiri kayu manis (*Cinnamomum burmanni* Nees ex Bl.) tidak memberikan efek toksisitas subkronik pada organ hati tikus yang dilihat dari hasil pemeriksaan kadar SGPT dan kadar SGOT serta yang diamati dari parameter histopatologi dan semakin besar dosis semakin besar juga efek toksisitas subkroniknya terhadap histopatologi organ hati tikus putih jantan.

Kata Kunci: toksisitas, minyak atsiri kayu manis, kadar SGPT/SGOT dan histopatologi.

ABSTRACT

WIJAYANTI, S. 2013. TEST OF SUBCHRONIC TOXICITY OF CINNAMON (*Cinnamomum Burmanni* Nees ex Bl.) ESSENTIAL OIL TO ALT AND AST LEVELS AND HISTOPATHOLOGY FIGURES IN HEPAR ORGAN OF WHITE MALE MICE WISTAR STRAIN, THESIS, FACULTY OF PHARMACY. SETIA BUDI UNIVERSITY, SURAKARTA.

Cinnamon (*Cinnamomum burmanni* Nees ex Bl.) has various chemical compounds such as cinnamaldehyde, eugenol, safrole which has efficacy in the treatment. Current research on the safety of cinnamon essential oil was still very minimal. This study was aimed to determine the effect of subchronic toxicity of essential oils of cinnamon (*Cinnamomum burmanni* Nees ex Bl.) to ALT/AST levels and histopathology figures in hepar organ of white male mice and know whether the greater dose also the greater effects of its subchronic toxicity.

Subchronic toxicity testing using 20 mice and were divided into 4 groups. Each group was given treatment of essential oils doses, group I: 0.01 ml/200 g BW, group II: 0.02 ml/200 g BW, group III: 0.04 ml/200 g BW and group IV: distilled water. The data were obtained from the examination ALT/AST levels in the week before treatment, weeks 1, 2, 3, 4 and histopathological figures of the hepar at the end of 4th week. The data results of ALT/AST were analyzed using paired sample t test and One Way Annova, for data histopathological results were analyzed using One Way Annova.

The results showed that the essential oil of cinnamon (*Cinnamomum burmanni* Nees ex Bl.) had no subchronic toxicity effect on the hepar of white male mice which seen by examining results of ALT and AST levels and which observed from histopathologic parameters and the greater dose also the the greater effect of subchronic toxicity to the hepar histopathology of white male mice.

Keywords: toxicity, cinnamon essential oil, ALT / AST levels and histopathology.