

UJI HEPATOTOKSIK AKAR BURDOCK (*Arctium lappa L*) TERHADAP HISTOPATOLOGI HEPAR TIKUS PUTIH JANTAN (*Rattus norvegicus*)

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ABSTRAK

Burdock (*Arctium lappa L*) merupakan tanaman obat homolog yang dapat dimakan dan dianggap memiliki banyak khasiat sebagai obat tradisional. Akar burdock memiliki beberapa kandungan zat seperti *Inulin*, minyak atsiri, *tanin*, *quercetin*, zat besi, dan *arctigenin*. Penelitian ini bertujuan untuk mengetahui pengaruh ekstrak akar burdock (*Arctium lappa L*) terhadap histopatologi hepar tikus putih jantan (*Rattus Norvegicus*). Penelitian ini menggunakan metode eksperimental, dengan 20 ekor tikus yang dibagi menjadi 4 kelompok secara acak dengan tiap kelompoknya berisi 5 ekor tikus. Kelompok 1 kontrol positif diberikan induksi gentamisin secara *intramuscular*, kelompok 2 kontrol negatif hanya diberi aquadest, kelompok 3 dosis ekstrak 150mg/kgBB, kelompok 4 dosis ekstrak 450mg/kgBB dengan perlakuan selama 14 hari dan dilakukan pembedahan pada hari ke 15 untuk diambil organ heparnya dan dibuat sediaan preparat histopatologi. Hasil penelitian diinterpretasikan dengan skoring, data ditabulasikan dan di analisa secara deskriptif kualitatif. Hasil penelitian pada kelompok kontrol positif dan negatif tidak ditemukan kerusakan, pada kelompok dosis 150mg/kgBB ditemukan nekrosis, perdarahan dan vakuolisasi, dan pada dosis 450mg/kgBB ditemukan degenerasi, nekrosis, perdarahan dan vakuolisasi. Pada keempat kelompok hewan coba ditemukan parasit cacing *Taenia taeniaeformis* pada organ hepar tersebut yang menyebabkan interpretasi hasil terganggu dan menjadi bias. Dapat disimpulkan bahwa dosis 150mg/kgBB dan 450mg/kgBB ekstrak akar burdock bersifat toksik untuk hepar.

Kata kunci: Ekstrak akar burdock (*Arctium lappa L*), hepar, histopatologi, toksik.

**HEPATOTOXIC TEST OF BURDOCK ROOTS
(*Arctium lappa L*) ON HISTOPATHOLOGY
HEART OF MALE WHITE RATS (*Rattus norvegicus*)**

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ABSTRACT

Burdock (*Arctium lappa L*) is a homologous medicinal plant is considered to have many advantages as a traditional medicine. Burdock roots contain several substances such as inulin, essential oils, tannins, quercetin, iron, and arctigenin. This study aims to determine the effects of burdock root extract on the liver histopathology of male white rats (*Rattus norvegicus*). This research used experimental methods with 20 mice which picked randomly and divided into 4 groups with each group were included 5 mice. The positive control group was given intramuscular induction of gentamicin. The negative control group was only given distilled water. The dose of 150 mg/kgBW group was received an extract of Burdock root. The dose of 450 mg/kgBW group received an extract Burdock root with treatment for 14 days and underwent surgery on 15th day to remove the livers and histopathological preparations were made. The research result were interpreted by scoring and tabulated, and analysis is carried out descriptively while discovered in positive control group which found that mild damage. However, in negative group there was no damage found while in dose of extract 150mg/kgBW group was found necrosis, bleeding and vacuolization. Despite this, dose extract of 450mg/kgBW group was obtained degeneration, necrosis, bleeding and vacuolization. On the other hand, *Taenia taeniaeformis* worm parasites were found in the liver organ, which caused the interpretation of the results to be disturbed. In conclusion, the doses of 150mg/kgBB and 450mg/kgBB of burdock root extract are toxic to the liver.

Keywords: Burdock root extract (*Arctium lappa L*), liver, histopathology, toxic.