

**TOKSISITAS SUBKRONIK EKSTRAK ETANOL
RIMPANG PACING (*Costus speciosus*) TERHADAP
FUNGSI ORGAN HATI PADA TIKUS**

**SITI KHOLISATUN NISA
201FF03046**

Program Studi S1 Farmasi, Fakultas Farmasi
Universitas Bhakti Kencana

ABSTRAK

Penggunaan obat tradisional telah menjadi praktik umum selama ribuan tahun. Indonesia, yang kaya akan keanekaragaman hayati, memiliki sekitar 30.000 jenis tanaman yang dapat dimanfaatkan sebagai obat, salah satunya adalah rimpang pacing (*Costus speciosus*). Tanaman ini dikenal memiliki berbagai khasiat seperti antifungi, antioksidan, anthelmintik, dan kontrasepsi tradisional. Penelitian ini bertujuan untuk menguji toksisitas subkronik ekstrak etanol rimpang pacing terhadap fungsi hati pada tikus jantan dan betina. Penelitian dilakukan dengan metode eksperimental laboratorium menggunakan tikus putih galur Wistar. Dua kelompok tikus, masing-masing terdiri dari 10 ekor jantan dan 10 ekor betina, diberi perlakuan dengan dosis 300 mg/kgBB ekstrak rimpang pacing selama 90 hari. Pengamatan dilakukan terhadap parameter indeks organ dan kadar enzim SGOT, SGPT pada tikus. Hasil penelitian menunjukkan bahwa pemberian ekstrak etanol rimpang pacing pada dosis tersebut tidak menyebabkan perubahan signifikan pada berat badan, indeks organ hati, maupun kadar SGOT dan SGPT pada tikus jantan dan betina. Kesimpulannya, ekstrak etanol rimpang pacing pada dosis 300 mg/kgBB selama 90 hari tidak menunjukkan tanda-tanda toksisitas pada organ hati tikus. Penelitian ini mendukung potensi penggunaan rimpang pacing sebagai bahan baku obat tradisional yang aman. Namun, penelitian lebih lanjut diperlukan untuk mengamati gejala toksik dan kematian hewan uji dalam jangka waktu yang lebih lama.

Kata kunci: rimpang pacing (*Costus speciosus*), toksisitas subkronik, fungsi hati, tikus jantan dan betina, SGOT dan SGPT, indeks organ

**SUBCHRONIC TOXICITY TEST OF ETHANOL EXTRACT OF
PACING (*Costus speciosus*) RHIZOMES ON LIVER
ORGAN FUNCTION IN RATS**

**SITI KHOLISATUN NISA
201FF03046**

Undergraduate Pharmacy Study Program, Faculty of Pharmacy
Bhakti Kencana University

ABSTRACT

The use of traditional medicine has been a common practice for thousands of years. Indonesia, which is rich in biodiversity, has around 30,000 types of plants that can be used as medicine, one of which is pacing rhizome (*Costus speciosus*). This plant is known to have various properties such as antifungal, antioxidant, anthelmintic and traditional contraception. This study aims to test the subchronic toxicity of ethanol extract of pacing rhizome on liver function in male and female rats. The research was carried out using laboratory experimental methods using white Wistar mice. Two groups of mice, each consisting of 10 males and 10 females, were treated with a dose of 300 mg/kgBB pacing rhizome extract for 90 days. Observations were made on liver parameters, organ indices, and SGOT and SGPT enzyme levels. The results of the study showed that administration of ethanol extract of pacing rhizome at this dose did not cause significant changes in body weight, liver organ index, or SGOT and SGPT levels in male and female mice. In conclusion, the ethanol extract of pacing rhizome at a dose of 300 mg/kgBW for 90 days showed no signs of toxicity in the rat liver. This research supports the potential use of pacing rhizomes as a safe raw material for traditional medicine. However, further research is needed to observe toxic symptoms and death of test animals over a longer period of time.

Keywords: pacing rhizome (*Costus speciosus*), subchronic toxicity, liver function, male and female rats, SGOT and SGPT, organ index