

INTISARI

Costus speciosus (Koen.) J.E. Smith (pacing) merupakan salah satu tanaman yang dimanfaatkan sebagai kontrasepsi alami. Tujuan penelitian ini adalah mengetahui gejala toksik yang timbul, pengaruh terhadap profil kimia darah dan urin setelah pemberian ekstrak herba pacing secara subkronis, dan sifat reversibilitas efek toksik terhadap profil kimia darah dan urin setelah pemberian ekstrak herba pacing dihentikan.

Penelitian dilakukan menggunakan hewan uji mencit jantan galur Balb/C dengan metode sesuai OECD *Guideline* 408. Hewan uji dibagi menjadi empat kelompok masing-masing kelompok 10 ekor yaitu kelompok kontrol, kelompok dosis 275 mg/kgBB, 550 mg/kgBB, dan 1100 mg/kgBB. Kelompok kontrol dan kelompok dosis 1100 mg/kgBB masing-masing ditambahkan lima ekor sebagai kelompok satelit untuk uji reversibilitas. Data PKBP hewan uji, asupan pakan dan minum, serta kimia darah dianalisis secara kuantitatif, sedangkan data urin dan gejala toksik yang timbul dianalisis secara kualitatif. Data dianalisis secara statistik menggunakan aplikasi SPSS 20 dengan taraf kepercayaan yang digunakan sebesar 95%.

Hasil penelitian menunjukkan bahwa pemberian berulang ekstrak herba pacing tidak menimbulkan gejala toksik, perubahan parameter urin, parameter glukosa, kolesterol total, albumin, SGOT, SGPT, protein total, urea, dan kreatinin mencit jantan. Dosis 550 mg/kgBB dan 1100 mg/kgBB menyebabkan kenaikan kadar bilirubin yang signifikan. Kenaikan kadar bilirubin bersifat ireversibel.

Kata kunci : ekstrak herba pacing, uji toksisitas subkronis, kimia darah, urinalisis

ABSTRACT

Costus speciosus (Koen.) J.E. Smith (*pacing*) is one of the plant used as a natural contraceptive. The purpose of this study is to determine if there are any toxic symptoms that arise, the influence on blood chemical and urinary profiles following subchronic administration of *pacing* herbs extracts, and the nature of reversibility of the toxic effects on blood chemistry and urinary profiles after the administration of *pacing* herbs extracts was stopped.

The study was conducted using male mice strain Balb/C as test subjects with method in accordance to OECD Guideline 408. The testing animals, were divided into four groups each consisting of ten subjects and the four groups were divided into control group, dosing group of 275 mg/kgBW, 550 mg/kgBW, and 1100 mg/kgBW. Five mice were added into the control group and dosing group of 1100 mg/kgBW respectively as satellite groups for the purpose of reversibility test. The mean of weight gain per day, food and water intake, and blood chemistry data were analyzed quantitatively, while the urinary and toxic symptoms data were analyzed qualitatively. Data were statistically analyzed using SPSS 20 with 95% level of confidence.

The results showed that repeated administration *pacing* herbal extract did not cause toxic symptoms, changes in urinary parameters, parameters of glucose, total cholesterol, albumin, SGOT, SGPT, total protein, urea, and creatinine. A dose of 550 mg/kgBW and 1100mg/kgBW caused a significant increase of bilirubin levels. Moreover, increased level of bilirubin is irreversible in nature.

Keywords: *pacing* herbs extracts, subchronic toxicity testing, blood chemical, urinalysis