

ABSTRAK

PENGARUH PEMBERIAN DOSIS TUNGGAL PERORAL EKSTRAK KULIT KAYU PULAI (*Alstonia scholaris*) TERHADAP PERUBAHAN BERAT BADAN, ASUPAN PAKAN, DAN MINUM MENCIT PUTIH (*Mus musculus*)

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Pulai (*Alstonia scholaris*) adalah salah satu tanaman obat tradisional yang berasal dari Indonesia. Tanaman ini biasanya dimanfaatkan daun, batang, dan kulit batang sebagai obat. Tujuan penelitian ini adalah mengetahui pengaruh pemberian ekstrak kulit kayu pulai terhadap perubahan berat badan dan asupan pakan serta minum mencit putih.

Mencit betina sebanyak 6 ekor dengan rata-rata berat badan $24,08 \pm 2,07$ g dipelihara dalam kandang metabolisme. Mencit dibagi menjadi dua kelompok, yaitu kelompok perlakuan dan kelompok kontrol. Kelompok perlakuan diberi ekstrak kulit kayu pulai dengan dosis tunggal 2000 mg/kg BB peroral, sedangkan kelompok kontrol diberi aquades. Mencit diamati selama 14 hari. Metode yang digunakan berdasarkan pada OECD 423. Berat badan ditimbang pada saat hari pertama sebelum perlakuan dan hari ke-14, sedangkan pakan dan minum diukur setiap hari. Analisis data menggunakan *software* SPSS dengan metode *Independent Sample T-test* dan *Paired Sample T-test*.

Hasil penelitian menunjukkan rata-rata perubahan berat badan mencit kelompok perlakuan $2,60 \pm 1,39$ g dan kelompok kontrol $2,27 \pm 2,42$ g. Rata-rata asupan pakan kelompok perlakuan $3,95 \pm 0,25$ g/hari dan kelompok kontrol $5,31 \pm 0,83$ g/hari. Rata-rata asupan minum kelompok perlakuan $8,21 \pm 1,03$ ml/hari dan kelompok kontrol $8,61 \pm 1,86$ ml/hari. Hasil analisis statistik menunjukkan dari ketiga parameter tersebut hanya asupan pakan yang terdapat perbedaan signifikan, sedangkan perubahan berat badan dan asupan minum tidak terdapat perbedaan signifikan. Dapat disimpulkan bahwa pemberian ekstrak kulit kayu pulai dosis tunggal 2000 mg/kg BB berpengaruh pada peningkatan asupan pakan dan tidak berpengaruh pada perubahan berat badan dan asupan minum mencit putih.

Kata kunci: *Alstonia scholaris*, *Mus musculus*, berat badan, pakan, minum

ABSTRACT

EFFECTS OF PERORAL SINGLE DOSE EXTRACT OF THE BARK FROM PULAI (*Alstonia scholaris*) ON CHANGES IN WEIGHT, FEED INTAKE, AND DRINK INTAKE OF MICE (*Mus musculus*)

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Pulai (*Alstonia scholaris*) is one of herbal medicine from Indonesia. Its leaves, sticks, and barks usually use as medicine. The purpose of this study was to find out the effects of pulai on changes in weight, feed intake, and drink intake of mice.

Six female mice with average body weight $24,08 \pm 2,07$ g are kept in metabolic cages. Mice were divided into two groups, namely the treatment group and the control group. The treatment group was given pulai bark extract at a dose of 2000 mg/kg BW orally, while the control group was given equates. Mice were observed for 14 days. Method used based on OECD guideline 423. Bodyweight was weighed on the first day before treatment and the 14th day, while feed and drink were measured every day. Data analysis using SPSS software Independent Sample T-test and Paired Sample T-test methods.

The results showed the average change in body weight of mice in the treatment group was 2.60 ± 1.39 g and the control group was 2.27 ± 2.42 g. The average feed intake of the treatment is 3.95 ± 0.25 g/day group and the control group is 5.31 ± 0.83 g/day. The average drinking intake of the treatment group was 8.21 ± 1.03 ml/day and the control group was 8.61 ± 1.86 ml/day. The results of statistical analysis showed that of the three parameters there were significant changes in feed intake and no significant changes in change of body weight and drink intake. From these results, it can be concluded that the administration of single doses of pulai extract affects on increasing feed intake but does not affect change of body weight and drink intake of mice.

Keywords: *Alstonia scholaris*, *Mus musculus*, body weight, feed, drink