

## INTI SARI

Penggunaan obat kontrasepsi umumnya dapat menimbulkan efek samping maupun efek toksik. Begitu juga penggunaan akar senggani (*Melastoma polyanthum* Bl.) yang sering digunakan masyarakat di Singkawang, Kalimantan Barat sebagai obat KB tradisional.

Penelitian pengaruh penggunaan akar senggani sebagai obat KB tradisional ini dilakukan untuk mengetahui efek toksik pada jaringan organ hati, ginjal, ovarium dan uterus tikus betina.

Hewan uji tikus betina galur Wistar, umur 2,5-3,5 bulan, bobot badan 135-180 gram sebanyak 25 ekor dibagi secara acak menjadi 5 kelompok. Kelompok pertama sebagai kontrol negatif yang diberi *aquades* 219,92 mg/kg BB dan empat kelompok lain diberi perlakuan ekstrak etanol akar senggani 27,49 mg/kg BB (dosis I), 54,98 mg/kg BB (dosis II), 109,62 mg/kg BB (dosis III), dan 219,92 mg/kg (dosis IV). *Aquades* dan ekstrak etanol akar senggani diberikan secara peroral selama 7 hari sebelum perkawinan dan 10 hari setelah perkawinan.

Pengamatan dilakukan terhadap pertambahan berat badan dari hari pertama sebelum perkawinan sampai hari ke-20 pada masa bunting. Sedangkan berat hati, ovarium dan uterus diamati pada akhir masa bunting dengan mengorbankan hewan uji. Pada jaringan organ hati, ginjal, ovarium dan uterus dibuat preparat histologi. Data berat badan, hati, ovarium dan uterus dianalisis dengan *Split-plot anava* dilanjutkan analisis varian pola searah dengan taraf kepercayaan 95% dengan LSD. Ekstrak etanol akar senggani dianalisis kualitatif secara KLT dan khusus senyawa steroid dari ekstrak etanol akar senggani ditetapkan kadar secara spektrofotometri visible.

Hasil penelitian menunjukkan bahwa ekstrak etanol akar senggani (*Melastoma polyanthum* Bl.) pada dosis 54,98 mg/kg BB menyebabkan hepatitis hemoragika, nefritis hemoragika dan oophoritis. Dengan peringkat dosisnya sampai dosis 219,92 mg/kg BB menunjukkan kerusakan jaringan semakin parah yang bersifat kronis. Analisis kualitatif secara KLT menunjukkan akar senggani mengandung tanin, flavonoid, dan steroid seperti pada bagian daunnya. Satu mg/ml berat kering ekstrak etanol akar senggani mengandung steroid sebanyak  $5,59 \cdot 10^{-3}$  %.

## ABSTRACT

The utilization of contraceptive drugs generally resulting both unprofit side effect or toxic effect. Senggani is a kind of plant which used as traditional contraceptive among people of Singkawang, West Borneo.

The influence of root senggani as traditional female contraceptive was conducted to evaluate the toxic effect to liver, kidney, ovary and uterus on pregnant *Rattus norvegicus*.

Twenty-five female Wistar rats were divided in five groups, each group contain five rats. Group I was treated by aquadest as negative control, while group II, III, and IV were treated by ethanolic extract of senggani root 27.49 mg/ kg body weight (dose I); 54.98 mg/ kg body weight (dose II) 109.62 mg/ kg body weight (dose III) and 219.92 mg/ kg body weight (dose IV). The extract was gave in oral administer, one day for seven days before copulation and ten days after copulation.

The investigation was done toward the body weight change from the first day before mating until the twentieth days of pregnancy. While, the liver, ovary and uterus weight were evaluated in the end of pregnancy, through Caesar operation. Histopathology were made from liver, kidney, ovary, and uterus. The data of body weight, liver weight, ovary weight, and uterus weight were analyzed by General Linier Measure continued by LSD with 95 % reliable level. The ethanolic extract of senggani root was identified with TLC method and special for steroid substance was analyzed by visible spectrofotometer.

The result shows that the causing haemoraghi hepatitis, nefritis haemoraghi, and ovary inflammation. The destruction effect of this extract was increasing by highest doses (219.92 mg/ kg body weight. The qualitative analyzed with TLC shows that senggani root contain tannin, flavonoid, and steroid as same as in the leaves. The steroid concentration from 1 mg/ ml dry weight of senggani extract was  $5,59.10^{-3}$  %