

INTISARI

Sambiloto (*Andrographis paniculata* (Burm.f) Nees) merupakan tanaman yang banyak dimanfaatkan dalam bidang kesehatan. Sambiloto banyak digunakan untuk menjaga tubuh tetap sehat. Banyak penelitian menunjukkan berbagai aktivitas dari sambiloto, salah satunya sebagai imunomodulator sehingga sambiloto berpotensi dibuat menjadi produk obat herbal terstandar. Namun demikian, informasi mengenai ketoksikan dari sambiloto dinilai masih minim, sehingga ketoksikan sambiloto perlu diselidiki lebih lanjut. Penelitian ini dimaksudkan untuk mengetahui efek toksik yang mungkin muncul akibat dari konsumsi ekstrak terstandar herba sambiloto melalui uji toksisitas akut ekstrak terstandar herba sambiloto.

Uji toksisitas akut ekstrak secara oral dilakukan dengan metode OECD Guideline 423 menggunakan tikus betina *Wistar* sebagai hewan uji. Hewan uji kemudian dibagi dalam beberapa kelompok sesuai pedoman OECD 423. Pengamatan dilakukan secara intensif selama 4 jam pertama setelah pemejanaan, dan dilanjutkan selama 24 jam untuk dilihat gejala toksik yang mungkin timbul, dicatat jumlah hewan uji yang mati, dan bila tidak ada hewan uji yang mati dalam kelompok uji, pengamatan dilanjutkan sampai 14 hari. Bobot tikus ditimbang untuk mengetahui purata kenaikan bobot. Semua hewan uji dikorbankan pada hari ke-14 untuk dilakukan penimbangan bobot organ dan pengamatan histopatologis pada organ-organ vital hewan uji. Data yang diperoleh kemudian dianalisis menggunakan SPSS 19 dengan tingkat kepercayaan 95%.

Hasil penelitian menunjukkan bahwa pemberian ekstrak terstandar herba sambiloto secara akut hingga dosis 2000 mg/kgBB tidak menunjukkan adanya kematian maupun gejala toksik pada hewan uji, sehingga ekstrak terstandar herba sambiloto masuk dalam kategori *unclassified* (>2000mg/kgBB) menurut *Globally Harmonized Classification System* (GHS). Hasil pengamatan histopatologis menunjukkan adanya perubahan pada organ hati berupa kongesti yang mungkin disebabkan karena sediaan uji.

Kata kunci : Andrographis paniculata, toksisitas akut, OECD 423, imunomodulator

ABSTRACT

Sambiloto (*Andrographis paniculata* (Burm.f) Nees) is a plant commonly used for health-related purpose. Sambiloto widely used to keep the body healthy. Many studies have shown a variety of activities from sambiloto, one of which was as an immunomodulator which makes sambiloto has the potentially to be made into standardized herbal product (OHT). However, information on acute toxicity from sambiloto is still minimum, so the toxicity from sambiloto needs to be investigated further. The study is intended to determine the toxic effects that may arise as a result of the consumption of standardized sambiloto extract through the acute toxicity test.

The acute toxicity test of standardized sambiloto extract was done to OECD Guideline using Wistar female rats as test animal. The animal are then divided into several groups as stated in the OECD Guideline. Observations were intensively done during the first 4 hours after oral-delivered loading and continued for 24 hours to observe toxic symptoms that may arise, recorded the number of test animals that died, and if no animals died in the test group, the observation was extended for up to 14 days. The mice were weighed to determine the average weight increase for every group. All animals were sacrificed on day 14 for the purpose of organ weighing and hystopathological observations. The data obtained were then analyzed using SPSS 19 with 95% trust level.

The results showed that acute administration of standardized sambiloto extract up to dose 2000 mg/kg BW (body weight) did not show any deaths or toxic symptoms in animal, so standardized sambiloto extract is grouped as unclassified category according to Globally Harmonized Classification System (GHS). Hystopathologic observations indicated a change in liver organ in the form of congestion which was possibly caused by the standardized sambiloto extract.

Keywords : *Andrographis paniculata*, acute toxicity, OECD 423, immunomodulator