

INTISARI

Sambiloto (*Andrographis paniculata* (Burm. F.) Ness) banyak digunakan secara tradisional untuk mengobati diabetes, tetapi fraksi kloroform ekstrak etanolik herba sambiloto dapat menurunkan bobot testis dan meningkatkan abnormalitas spermatozoa, fraksi tersebut mengandung senyawa 14-deoksiandrografolid. Penelitian ini bertujuan untuk mengetahui aktivitas antifertilitas isolat 14-deoksiandrografolid terhadap tikus jantan berupa perilaku seksual, bobot testis, dan kualitas spermatozoa.

Penelitian ini menggunakan 24 ekor tikus jantan dan betina galur Wistar berusia 1 bulan. Isolat 14-deoksiandrografolid dengan dosis 4,5 mg/kg BB/hari dan 9,0 mg/kg BB/hari, diberikan secara oral kepada tikus jantan berusia 1 bulan selama 28 hari, digunakan kontrol positif berupa CMC-Na 0,5% dan kontrol negatif berupa gossipol dengan dosis 5,0 mg/kg BB/hari. Perilaku seksual berupa jumlah *mounting*, *intromission* dan ejakulasi diamati dengan bantuan CCTV selama 14 hari setelah 7 hari pemejanaan, sedangkan bobot testis, jumlah, viabilitas, abnormalitas dan motilitas spermatozoa diamati setelah 28 hari pemejanaan.

Hasil penelitian menunjukkan baik isolat 14-deoksiandrografolid dosis 4,5 mg/kg BB/hari maupun dosis 9,0 mg/kg BB/hari tidak memberikan pengaruh terhadap perilaku seksual, bobot testis, jumlah, dan abnormalitas spermatozoa, tetapi dapat menurunkan motilitas spermatozoa dan hanya pada dosis 9,0 mg/kg BB/hari mampu menurunkan viabilitas spermatozoa tikus jantan galur Wistar.

Kata Kunci : *Herba sambiloto, isolat, 14-deoksiandrografolid, antifertilitas*

ABSTRACT

Sambiloto (*Andrographis paniculata* (Burm F.) Ness.) has been extensively traditionally used to cure diabetes, but in chloroform fraction of ethanolic extract of sambiloto can decrease the weight of testis and increase sperm abnormality, this fraction contain 14-deoxyandrographolide. This study aims to determine the antifertility activities of 14-deoxyandrographolide isolate in male Wistar mouse to see the changing of sexual behaviour, testis weight, and quality of sperm.

This study used 24 one month old Wistar male and female mouse. 14-deoxyandrographolide isolate with dosage of 4,5 mg/kg BW/day and 9,0 mg/kg BW/day administered orally to 1 month old Wistar mouse for 28 days, with CMC-Na 0,5% as positive control and Gossypol with dosage of 5,0 mg/kg BW/day as negative control. Sexual behaviour in form of mounting, intromission and ejaculation were observed using CCTV for 14 days after 7 days of oral dosage, while testis weight, concentration, viability, abnormality and motility were evaluated after 28 days of oral dosage.

The result showed that neither 14-deoxyandrographolide isolate with dosage of 4,5 mg/kg BW/day nor 9,0 mg/kg BW/day have no effect in sexual behaviour, testis weight, concentration, and abnormality of sperm in male Wistar mouse, but significant decrease of sperm viability and only on dosage of 9,0 mg/kg BW/day significant decrease of sperm motility can be seen.

Keyword: *Sambiloto herb, Isolate, 14-deoxyandrographolide, Antifertility*