

INTISARI

Sambiloto adalah salah satu tanaman herbal yang memiliki banyak khasiat, seperti penurun gula darah, antivirus, antibakteri, antikanker, dan banyak lainnya. Penelitian yang telah dilakukan juga membuktikan sambiloto memiliki aktivitas sebagai anti spermatozoa, dimana salah satu kandungan yang diduga menyebabkan aktivitas tersebut adalah flavonoid polimetoksi. Penelitian ini bertujuan mengetahui aktivitas flavonoid polimetoksi terhadap penurunan kualitas sperma dan perubahan perilaku klinis seksual pada tikus.

Kelompok tikus jantan dipenjangkan flavonoid polimetoksi dengan dosis 4,5 dan 9 mg/kgBB selama 28 hari. Selama pemejangan dilakukan, tikus jantan diamati perilaku seksualnya dengan parameter jumlah *mounting*, *intromission*, dan ejakulasi. Tikus dieutanasia pada hari ke-29 kemudian dianalisis kualitas sel spermanya dengan parameter bobot testis, motilitas, abnormalitas, konsentration, dan jumlah sel sperma hidup.

Hasil yang diperoleh menunjukkan flavonoid polimetoksi herba sambiloto dosis 4,5 dan 9 mg/kgBB tidak memiliki aktivitas merubah perilaku seksual, tidak menurunkan bobot testis, motilitas, dan konsentration, namun meningkatkan abnormalitas dan menurunkan jumlah sel sperma hidup tikus jantan setelah dipejangan selama 28 hari.

Kata kunci: *Andrographis paniculata*, flavonoid polimetoksi, kualitas sperma, perilaku seksual

ABSTRACT

Sambiloto is one of the herbal plants that has many properties, such as lowering blood sugar, antiviral, antibacterial, anticancer, and many others. Research that has been carried out also proves that sambiloto has activity as an anti-spermatozoa, where one of the ingredients suspected of causing this activity is polymethoxy flavonoids. This study aims to determine the activity of polymethoxy flavonoids on sperm quality reduction and changes in sexual clinical behavior in rats.

Groups of male rats were exposed to polymethoxy flavonoids at a dose of 4.5 and 9 mg/kgBW for 28 days. During the exposure, male rats were observed for their sexual behavior with the parameters of mounting, intromission, and ejaculation. The rats were euthanized on the 29th day and then analyzed the quality of sperm cells with parameters of testicular weight, motility, abnormality, concentration, and the number of live sperm cells.

The results obtained showed that the polymethoxy flavonoids of sambiloto herbs at doses of 4.5 and 9 mg/kgBW did not have any activity to change sexual behavior, did not reduce testicular weight, motility, and concentration, but increased abnormalities and decreased the number of live sperm cells in male rats after exposure for 28 days.

Keywords: *Andrographis paniculata*, polymethoxy flavonoids, sperm quality, sexual behavior