

INTISARI

Senyawa 2,5-*bis*-(4'-metoksi-benzilidin)-siklopentanon merupakan senyawa analog PGV-0. Penelitian ini dilakukan untuk mengetahui aktivitas analgesik persisten senyawa 2,5-*bis*-(4'-metoksi-benzilidin)-siklopentanon pada mencit jantan galur Swiss dengan metode *Formalin Test*.

Penelitian ini merupakan penelitian eksperimental murni dengan rancangan acak lengkap pola searah. Subjek uji menggunakan mencit jantan galur Swiss, umur 2,5-3 bulan, berat badan 20-30 g. Empat puluh ekor mencit dibagi menjadi 8 kelompok perlakuan. Kelompok I sebagai kontrol negatif (diberi perlakuan CMC-Na 0,5% secara p.o.), kelompok II dan III sebagai kontrol positif (diberi perlakuan indometasin dosis 4 mg/kgBB secara i.p. dan morfin dosis 5 mg/kgBB secara i.p.), dan kelompok IV-VIII diberi perlakuan senyawa uji 2,5-*bis*-(4'-metoksi-benzilidin)-siklopentanon dengan dosis berturut-turut yaitu 17,78; 26,67; 40; 60; dan 90 mg/kgBB secara p.o. Mencit diinduksi formalin 1% secara intraplantar pada kaki kirinya, selanjutnya diamati total waktu menjilat selama fase I (0-5 menit) dan fase II (10-30 menit). Dari data total waktu menjilat pada fase I dan II kemudian dianalisis secara statistik dengan taraf kepercayaan 95%.

Hasil penelitian menunjukkan bahwa senyawa 2,5-*bis*-(4'-metoksi-benzilidin)-siklopentanon memiliki aktivitas analgesik. Terdapat hubungan linear antara log dosis dengan daya analgesik persisten senyawa 2,5-*bis*-(4'-metoksi-benzilidin)-siklopentanon baik pada fase I maupun pada fase II.

Kata kunci: 2,5-*bis*-(4'-metoksi-benzilidin)-siklopentanon, analgesik, *Formalin Test*, pra klinik

ABSTRACT

The compound of 2.5-bis-(4'-methoxy-benzyl)-cyclopentanone is a PGV-0 analog compound. This research was conducted to investigate the persistent analgesic activity of 2.5-bis-(4'-methoxy-benzyl)-cyclopentanone compound in Switzerland strain male mice by using Formalin Test.

This research was a pure one way randomized experimental research. The subjects of this research were Switzerland strain male mice whose age were 2.5–3 months and its weights were 20–30 g. Forty mice were divided into 8 treatment groups. Group I acted as negative control group (treated with CMC-Na 0.5% by p.o.), group II and group III acted as positive control (treated with indometasin 4mg/kgBB by i.p. dan morfin 5 mg/kgBB by i.p.), and group IV–VIII were treated with 2.5-bis-(4'-methoxy-benzyl)-cyclopentanone compound with dosage of 17.78; 26.67; 40; 60 mg/kgBB; and 90 mg/kgBB successively by p.o. The mice were induced by intraplantar formalin 1% into the mice's left hindpaw. This process was followed by monitoring of total licking time on phase I (0-5 minutes) and II (10-30 minutes). The data from total licking time was analyzed by using statistic with degree of validity 95%.

The result of the research analysis shows that 2.5-bis-(4'-methoxy-benzyl)-cyclopentanone compound has persistent analgesic activity. There is a linear connection between the dose log and the persistent analgesic capacity (%) of 2.5-bis-(4'-methoxy-benzyl)-cyclopentanone compound both in the phase I and phase II.

Keywords: 2.5-bis-(4'-methoxy-benzyl)-cyclopentanone, analgesic, Formalin Test, pre clinic