An animal model of clinical kinetic analyzed to diminazene aceturate in subjects with Tripanosoma infection

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Abstrak

Diminazen aseturat dilaporkan menghambat aktivitas balik enzim transkriptase melalui mekanisme aksi pengganjalan pada beberapa protozoa eukariyot parasitik seperti kerabat Tripanosoma. Telah dicari farmakokinetik plasma darah diminazen pada lima kambing terinfeksi yang diberi pengobatan 7 mg.kg-l berat badan dosis tunggal intra muskular. Konsentrasi obal ditetapkan melalui Kromatograji Cair Kinerja Tinggi fase lerbalik. Hasil menunjukan rerata <± galas baku) Absorbs}, Distribusi, Metabolisme, Ekskresi (ADME) berpola tri-eksponemial dengan Ka (menit'1) 5.1O2 ±26.1O\a (menif'), K!2 (menif1) dan K21 (menif1) 18.1O* ±J.10'2, 14.10'* ± 1.1O2 dan Lia3 ±LiaJ. Rerata harga fitments1) dan K13 (menit") didapat 1.4.104 ±4. Iff* dan 3.10'* +2.W*. Rerata harga Tmtiks (menit) dan Kmaks (fig.mt1) didapat 53.71 ±30.61 and 13.40 ±8.13. Rerata harga Yds (L), Cl (ml.menif1), Tlfiffjam1) and Area di bawah kurva °-t~(fjg.L".menit) didapat 4.91 ±3.12, 14.29 ±4.08, 94.91 ±33.23 dan 12.680 ±2.722. (MedJIndones 2006; 15:69-73).

<hr>Diminazene aceturate has been reported to inhibit the reverse transcriptase activity by intercalating action mechanism of a number of protozoan eucaryol parasitic like Trypanosoma species. The phamacokinetics of diminazene in the blood plasma of five infected goaty treated with single intramuscular doses of 7 mg diminazen base kg body weight was investigated. The concentrations of the drug were determined by reverse phase high performance liquid chromatogmphy. Results show tlmt the mean (± SD) Absorption, Distribution, Metabolism and Excretion (ADME) of the drug plasma followed a tri-exponential process with Ka (minutes') were obtained at 5.10" +26.10". a (minutes'), K12 (minutes') and K21 (minutes') were obtained at 18. /0"'f ± 1.10'2, 14. Iff* ± 1. !0'2 and 1./0~'! ± 1.Iff3. The mean values of fi (minutes' 1} and Kl3 (minutes') were obtained at 1.4.W4±4. JO* and 3.10~~f ±2.10". The mean values of Tmax(minutes) and Cmax (fjg.m!'1) were obtained at 53.71 ±30.61 and 13.40 ±8.13. The mean values of Yds (L), Cl (ml .minutes"), Tl/2ff hours') and ALKf^fas.L".minutes) were obtained at 4.91 ±3.12, 14.29 ±4.08,94.91 ±33.23 and 12.680 ±2.722. (MedJIndones 2006; 15:69-73).