

## Perbandingan kadar azitromisin darah dan segmen posterior hewan coba kelinci pasca pemberian oral setara dosis manusia 500 mg dan 1000 mg = Blood and posterior segment concentration in rabbits following 500 mg and 1000 mg human equivalent dose of oral azithromycin

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### Abstrak

Azitromisin, terapi alternatif dari terapi triplet standar yang memiliki berbagai efek samping, belum diketahui pasti apakah konsentrasi intraokular sudah cukup untuk mencegah replikasi maupun eradikasi toksoplasmosis. Penelitian ini bertujuan untuk menilai kadar azitromisin pada darah vena, vitreus, dan koroid/retina hewan coba kelinci pasca pemberian azitromisin oral setara dosis manusia. Sebanyak masing-masing empat kelinci albino New Zealand White diberikan tiga regimen perlakuan pada penelitian utama: pemberian azitromisin 26mg/kgBB setara dengan azitromisin 500 mg dosis manusia pada kelompok I setiap hari, 26mg/kgBB setiap dua hari, dan 50 mg/kgBB kgBB setara dengan azitromisin 1000 mg dosis manusia 1 kali dalam 1 minggu selama 2 minggu pemantauan. Preparat retina, koroid dan vitreous diperiksa dengan kromatografi cair ndash; spektrometri massa untuk menentukan kadar azitromisin. Rasio  $C_{maks}/K_{HM}$  berada jauh diatas batas peningkatan yang menjadi kriteria antibiotik concentration dependent  $C_{maks}/K_{HM} > 10$  kali . Kelompok pertama, kedua dan ketiga meningkat lebih dari 100, 74 dan 79 kali, berturut-turut. Rerata kadar azitromisin di vitreus tetap lebih tinggi dari pada KHM pada kelompok 1 68,15 42,95 ng/ml dan kelompok 2 7,73 2,31 ng/ml . <hr />Azithromycin, an alternative for standard triplet therapy which the later has deleterious side effects, is not precisely known whether intraocular concentration is sufficient to halt replication and promote toxoplasmosis eradication. This study aimed to evaluate azithromycin level in venous blood, vitreous, and choroid/retinal tissues in rabbits after oral azithromycin administration equivalent to human doses. Four New Zealand albino rabbits each were given one of the following treatments: administration of azithromycin 26mg / kgBW equivalent to azithromycin 500 mg human dose daily group 1 , 26mg / kgBB every two days group 2 and 50 mg / kgBB kgBB equivalent to azithromycin 1000 mg human dose 1 time in 1 week group 3 for 2 weeks of monitoring. Retinal, choroid and vitreous preparations were examined by liquid chromatography - mass spectrometry to determine azithromycin levels.  $C_{max}/MHC$  ratio was far above criterion for concentration dependent antibiotics  $C_{maks} / MHC$  ratio  $> 10$  times  $C_{max}/MHC$  ratio in group 1,2 and 3 were increased by more than 100, 74 and 79 times, respectively. Mean azithromycin levels in vitreous remained higher than MHC: group 1 68.15 42.95 ng / ml and group 2 7.73 2.31 ng / ml . The azithromycin level in the retina-choroid was higher than that of venous blood after 14 days of oral azithromycin.