

**PENGARUH CLINDAMYCIN® DAN AQUAPRIM® TERHADAP DAYA TAHAN HIDUP DAN HISTOPATOLOGI LIMPA, HATI, PARU - PARU PADA MENCIT (*Mus musculus*) YANG DIINFEKSI *Toxoplasma gondii***

Oleh :

**Topas Wicaksono Priyo. Jr**

**INTISARI**

Toksoplasmosis merupakan penyakit parasit yang disebabkan oleh *Toxoplasma gondii* dan bersifat zoonosis. Tujuan penelitian ini adalah untuk mengetahui pengaruh pemberian Clindamycin® dan Aquaprim® pada mencit yang diinfeksi *T. gondii* terhadap daya hidup dan histopatologi limpa, hati dan paru-paru. Clindamycin® berisi Clidamycin HCL 326 mg setara dengan Clindamycin base 300 mg dan tiap 1 ml Aquaprim® mengandung 200 mg sulfadiazine dan 40 mg trimethoprim. Mencit sebanyak 20 ekor diambil secara acak dibagi menjadi 4 kelompok. Kelompok I sebagai kontrol tanpa infeksi sebanyak 3 ekor, kelompok II sebagai kontrol yang diinfeksi secara intraperitoneal dengan  $10^3$  takizoit/ekor sebanyak 5 ekor, kelompok III sebanyak 6 ekor diinfeksi secara intraperitoneal dengan  $10^3$  takizoit/ekor dan diberikan Clindamycin® dengan dosis 2,5 mg/ekor/hari secara peroral, kelompok IV sebanyak 6 ekor diinfeksi secara intraperitoneal dengan  $10^3$  takizoit/ekor dan diberikan Aquaprim® dengan dosis 0,01ml/ekor/hari. Mencit yang mati dan mencit yang dieuthanasi kemudian dinekropsi, diambil organ limpa, hati dan paru-paru kemudian dimasukkan kedalam formalin 10% dan dibuat preparat histologi. Data preparat histologi yang diperoleh dianalisis secara deskriptif. Hasil dari penelitian ini adalah kelompok I daya hidupnya sampai lebih dari hari keduapuluh dan organ limfa, hati, paru-paru terlihat normal. Kelompok II daya hidup hanya sampai hari keenam dan organ limfa terlihat nekrosis, hati terlihat nekrosis, paru-paru terlihat banyak sel makrofag. Kelompok III daya hidup hanya sampai hari kedelapan dan jaringan limpa mengalami deplesi limfosit, hati mengalami nekrosis dan paru-paru mengalami hiperplasia. Kelompok IV sebagian besar (80%) hidup sampai hari keduapuluh dan Aquaprim® dapat mengurangi nekrosis di organ limpa, mengurangi nekrosis di organ hati serta mengurangi hiperplasia paru-paru. Kesimpulan penelitian adalah Clindamycin® tidak efektif untuk mengobati toksoplasmosis dan Aquaprim® efektif untuk mengobati toksoplasmosis.

**Kata kunci :** *T.gondii*, Clindamycin®, Aquaprim®, Histopatologi

**EFFECT OF CLINDAMYCIN AND AQUAPRIM TOWARD  
VITALITY AND HISTOPATHOLOGY OF SPLEEN, LIVER AND  
LUNGS IN TOXOPLASMOSIS- INFECTED MICE (*Mus musculus*)**

**Topas Wicaksono Priyo. Jr**

**ABSTRACT**

Toxoplasmosis is both parasitic and zoonotic disease caused by *Toxoplasma gondii*. The objective of this research is to know the effect of Clindamycin® and Aquaprim® towards the vitality and histopathology changes of spleen, liver and lungs of mice that were infected toxoplasmosis. Clindamycin consists of Clidamycin® HCL 326 mg equivalent to Clindamycin base 300 mg and every 1 ml of Aquaprim® consists of 200 mg sulphadiazine and 40 mg trimethoprim. 20 mice were taken randomly and further divided into 4 categories. Category I acted as control variable consisting 3 mice without infection while category II was also control variable with infection consisting 5 mice and 10<sup>3</sup> tachyzoite/mouse were injected intraperitoneal. Category III had 6 mice, each of it was injected intraperitoneal with 10<sup>3</sup> tachyzoite/mouse and Clindamycin® was given at the dosage of 2.5mg/mouse/day orally while category IV consisted 6 mice, 10<sup>3</sup> tachyzoite/mouse was injected through peritoneum and were given Aquaprim® with dosage of 0.01% ml/mouse/day. Dead and euthanized mice were undergone necropsy. Spleen, liver and lungs were extracted and immersed in formalin 10% for histopathology specimens. The histopathological data was obtained and analyzed descriptively. The result of this research showed that the mice from category I had better vitality which able to survive for more than 20 days and the spleens, livers and lungs were shown normal. Vitality of category II only lasted for six days and its spleens and livers were necrotized and plenty of macrophage was seen in the lungs. Vitality of category III lasted for eight days and the splenic tissues showed depletion of lymphocytes, liver was necrotized and hyperplasia was seen in the lungs. In category IV, 80% was able to survive till the twentieth day and Aquaprim® managed to reduce necrosis in both spleen and liver and also reduced hyperplasia in lungs. The research concluded that Clindamycin® is not effective in treating toxoplasmosis while Aquaprim® is effective in treating toxoplasmosis.

**Keywords :** *T. gondii*, Clindamycin®, Aquaprim®, Histopathology