

**Leukositopenia pada Mencit Setelah Diinfeksi *Toxoplasma gondii*
dengan Dosis Tinggi dan Dosis Rendah**

Didik T. Subekti ^{✉1)}, Tolibin Iskandar ¹⁾, Eka Setia Puspo Sari ²⁾, Dian Ratih L ²⁾,
Rica Haerlani ²⁾, Eka Fitri Diani ²⁾, Dwi Retno Widyastuti ²⁾

¹⁾ Balai Penelitian Veteriner

²⁾ Fakultas Farmasi, Universitas Pancasila

ABSTRACT

Leukocytopenia on Mice Following High and Low Infection Doses of *Toxoplasma gondii*.

Toxoplasmosis is zoonotic disease caused by apicomplexan parasites i.e. *Toxoplasma gondii*. The parasites infects virtually all nucleated cell on wide range host. High multiplication stages of parasites called tachyzoite - have ability to migrate on long distance from site of infection. Once tachyzoite reach circulation system they are able to infect all leukocyte component such as monocytes, neutrophils and lymphocytes. Further, they will be multiplied and egress from the cells which was caused cell destruction. Purpose of the research is to study effect of high and low infection doses on degree of cell depletion especially on leukocyte. BALB/c mice were intraperitoneally infected with 5×10^6 tachyzoites/mice (called high infection dose ; HID) and $2,5 \times 10^3$ tachyzoites/mice (called low infection dose ; LID). The HID group were bleed on 4th day post infection, while LID group were bleed on 8th day post infection. Blood sample was obtained by cardiac puncture using tuberculin syringe containing heparin as anticoagulant. Leukocyte count and differential count were determined to assayed the effect of infection. Leukocyte count on HID and LID groups were significantly decreased compare to normal leukocyte from non treated (healthy) mice. Those phenomena was corresponds with leukocytopenia that characterized with excessive decreased of leukocytes count, especially neutrophenia and lymphopenia.

Key words: Toxoplasmosis, *Toxoplasma gondii*, leukocyte, leukocytopenia, differential count.