THE EFFECT OF *Salmonella typhimurium* INFECTION WITH VARIOUS DILUTION INTRAPERITONEALLY TO THE NUMBER OF ACTIVE MACROPHAGE CELLS IN MICE (*Mus musculus*)

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ABSTRACT

The purpose of this study was to determine the effect of *Salmonella typhimurium* infection with various dilution intraperitoneally to the number of active macrophages and magnitude of ID 50 *Salmonella typhimurium*. Study used 24 experimental mice strain Balb / C, divided into six groups (K, P1, P2, P3, P4, and P5). K was only given with aquadest for five days. P1, P2, P3, P4, and P5 infected by *Salmonella typhimurium* intraperitoneally with various dilutions, 10^2 cells/ml, 10^3 cells/ml, 10^4 cells/ml, 10^5 cells/ml, 10^6 cells/ml for five days. The data of this study was analyzed with ANOVA and Duncan test. The result showed significant differences (p<0.05) in the number of active macrophage in all treatment groups which influenced by various dilutions of bacteria. The result of ID 50 *Salmonella typhimurium* calculation was 2.9 x 10^4 cells/ml. Based on research, the higher dilution of *Salmonella typhimurium*, the less number of active macrophage phagocytosing bacteria in mice (*Mus musculus*) and 2.9 x 10^4 cells/ml *Salmonella typhimurium* able to activate macrophage to phagocytosis of bacteria.

Key words: *Salmonella typhimurium*, active macrophage cells, mice, peritoneum fluid, ID 50 *Salmonella typhimurium*. 