ABSTRAK

Makrofag merupakan salah satu komponen sistem imun yang berperan penting dalam memfagosit antigen, sehingga ketika makrofag mengalami gangguan dapat menyebabkan penyakit. Saliva memiliki kandungan zat yang dapat menstimulasi aktivasi makrofag yang telah banyak diteliti pada penyembuhan luka, namun belum dilakukan pengaruh saliva secara oral, sehingga dilakukan penelitian untuk mengetahui pengaruh pemberian konsentrat saliva terhadap respon fagosistosis makrofag peritoneum mencit (*Mus musculus)*.

Penelitian eksperimental dengan rancangan *post test only control group design* ini menggunakan 20 ekor mencit *(Mus musculus)* jantan dibagi empat kelompok secara acak. Kelompok 1: kontrol normal diberi aquadest, dan kelompok 2, 3, 4 diberi konsentrat saliva dengan konsentrasi 12,5%; 25%; dan 50%. Perlakuan diberikan selama 7 hari. Setelah dikultur, makrofag dan latex diamati dan dihitung. Respon fagositosis makrofag diukur dengan rumus kapasitas fagositosis makrofag dan index fagositosis makrofag. Kapasitas fagositosis makrofag dianalisis dengan uji One Way Annova dan Post Hoc. Index fagositosis makrofag dianalisis dengan uji Kruskal Wallis dan *Mann Whitney*.

Rata-rata kapasitas fagositosis makrofag pada berbagai kelompok 1, 2, 3, dan 4 masing-masing sebagai berikut: 61,00%; 64,20%; 74,69%; dan 76,80%. Rata-rata index fagositosis makrofag pada berbagai kelompok 1, 2, 3, dan 4 masing-masing sebagai berikut: 1,74; 1,66; 2,18; 2,83. Kelompok 4 (pemberian konsentrat saliva 50%) paling efektif dalam meningkatkan kapasitas dan index fagositosis makrofag dibandingkan konsentrasi 12,5% dan 25%.

Kesimpulan pemberian konsentrat saliva berpengaruh meningkatkan respon fagositosis makrofag peritoneum mencit (*Mus musculus)*.

Kata kunci: Saliva, Fagositosis Makrofag, Peritoneum Mencit.

ABSTRACT

***Backround**: Macrophages are one component of the immune system that plays an important role in phagocytes of antigens, when macrophages are impaired it can cause disease. Saliva contains substances that can stimulate the activation of macrophages that have been widely studied in wound healing, but have not much known yet about saliva effect orally, so this study is to determine the effect of concentrated saliva on phagocytic responses of peritoneal macrophages in mice.*

***Methods**: 20 male mice were randomly divided into four groups. Group 1: normal control (aquadest) and groups 2, 3, 4 (concentrated saliva at 12.5%; 25%; and 50% respectively) for 7 days. Once cultured, macrophages and latex were observed and calculated. The macrophage phagocytic responses were measured by the percentage of phagocytic capacity of macrophages and macrophages phagocytic index. The data on phagocytic capacity of macrophages and macrophages phagocytic index were analyzed using One Way Anova followed by Post Hoc tests and Kruskal Wallis followed by Mann Whitney tests.*

***Results**; The mean phagocytic capacity of macrophage in groups 1, 2, 3, and 4 were 61.00%; 64.20%; 74.69%; and 76.80% respectively. The mean macrophage phagocytic index in groups 1, 2, 3, and 4 were 1.74; 1.66; 2.18; 2.83 respectively. The highest phagocytic capacity of macrophages and macrophages phagocytic index were found in group 4 (concentrated saliva at 50%).*

***Conclusion:** Conclusions of concentrated saliva was increasing phagocytic responses of peritoneal macrophages in mice.*

***Keywords:** Saliva, Macrophage Phagocytosis, Peritoneum Mice.*