

ABSTRACT

Hepatitis B is one of the main health problems, both in the world and in Indonesia. The quantity of HBsAg is one indicator of the amount of hepatitis B virus that infects. The more viruses that infect, the immune cells in the body will try harder to fight virus. This study aims to analyze the correlation between HBsAg titer levels on mononuclear cells in hepatitis B positive patients. This study used an analytic observational study with a cross-sectional research design. The study was conducted in December 2021 – May 2022 with a total sample of 30 hepatitis B positive patients at RSU Haji Surabaya. HBsAg examination was performed using Electrochemiluminescence Immunoassay, while mononuclear cells consisting of lymphocytes and monocytes were examined using a Hematology Analyzer. A total of 46.66% of patients with positive hepatitis B had high HBsAg titers, 36.67% patients had low HBsAg titers, and 16.67% had medium HBsAg titers. The number of lymphocyte cells in hepatitis B positive patients was mostly below normal as much as 36.7%, while the number of monocyte cells was mostly upper normal as much as 43.3%. Based on the statistical analysis of the Spearman correlation, the results obtained $p > 0.05$ between HBsAg titer levels against lymphocytes and monocytes ($p = 0.310$ and $p = 0.364$), so it can be interpreted that there is no correlation between HBsAg titers to mono-nuclear cells in patients positive for hepatitis B.

Keyword : *Hepatitis B, HBsAg titer, Mononuclear Cell, Lymphocyte, Monocyte*