

**EXAMINATION OF HEPATITIS B VACCINE PHASE SUBCHRONIC
TOWARD SPLEEN WEIGHT AND WHITE PULP DIAMETER
OF RAT (*Rattus norvegicus*)**

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ABSTRACT

This study aims to determine the effect of hepatitis B vaccine of spleen weight and white pulp diameter in rat (*Rattus norvegicus*). This study used 20 male wistar rats aged 8 weeks with an average weight of 200-250 grams, which was divided into four groups. Control group (P0) was given PBS solution, treatment group 1 (P1) was given type 1 hepatitis B vaccine, treatment group 2 was given type 2 hepatitis B vaccine, and treatment group 3 (P3) was given type 3 hepatitis B vaccine. Dose administered 0.4 ml and given repeatedly at days 0,30, and 60. Animals model to euthanize on day 75 for sampling. The spleen organ is weighed after the necropsing process and then the spleen is stored for the preparation of histopathologic with HE staining (Hematoxylin Eosin). The data obtained are weight data of spleen organ and spleen white pulp diameter. The results showed the highest weight of spleen organ 0.92 gram in group P0 and the largest white pulp diameter 34,34 μm in group P1. The results of data analyzed using one-way ANOVA (Analysis of Variance) and continued with Duncan alpha test. One Way Anova and Duncan alpha test showed that there were non significantly different between groups ($P>0.05$). The conclusion is we know that hepatitis B vaccine type 1,2, and 3 can't give the effect for spleen weight and white pulp diameter in rat (*Rattus norvegicus*).

Key words : Hepatitis B vaccine, rat, weight of spleen, diameter of white pulp.