

## **ABSTRACT**

### **COMPARISON OF TOXIC DOSE ADMINISTRATION OF GENERIC AMOXICILLIN AND BRANDED AMOXICILLIN TOWARD CATALASE ACTIVITY SPESIFIC ENZYME OF RAT LIVER (*Rattus norvegicus*) *Sprague dawley* STRAINS**

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Amoxicillin is an antibiotics that widely used by Indonesian society because of it is affordable and easy to obtain, although many people buy it without prescription. Amoxicillin is metabolized in the liver, so often associated by adverse events to the liver. One of the effects amoxicillin administration is seen from the liver catalase activity. The sole purpose of this study is to know the difference between the effect of toxic dose generic and branded amoxicillin administration toward catalase enzyme activity and to identify which gives maximum and minimum toxic effect in terms of catalase enzyme activity.

This is an experimental study. Samples numbered 27 experimental animals divided into 9 groups, with 3 control groups and 6 treatment groups. Activity catalase spesific be measured from liver samples. Then performed a one way ANOVA statistical test to determine the correlation of two variables.

Result showed the mean liver catalase specific activity, that is control groups (KN=0.0039U/mg, KA=0.0019U/mg, KB=0.0018U/mg), generic groups (A1=0.0024U/mg, A2=0.0020U/mg, A3=0.0016U/mg), and branded groups (B1=0.0018U/mg, B2=0.0017U/mg dan B3=0.0014U/mg).

The conclusion of this study, there is significant difference statistically between generic amoxicillin with branded amoxicillin, and the highest dose of branded amoxicillin has the lowest liver catalase spesific activity and the lowest dose of generic amoxicillin have the highest liver catalase specific activity.

Key words: Branded drug, catalase, generic drug