ABSTRACT

COMPARISON TOXIC DOSE OF GENERIC WITH BRANDED AMOXICILIN AGAINST REDUCED GLUTHATHIONE LEVEL IN RAT LIVER Rattus norvegicus Sprague Dawley STRAINS

By

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Amoxicillin is beta-lactam group antibiotics that effective to eradicate gram positive and negative bacteria. Therefore, amoxicillin widely prescribed by doctors and used by society. The usage of amoxicillin without prescription could give rise the risk of hepatotoxicity. In Indonesia, amoxicillin consist of amoxicillin generic and branded. Ideally both of the drugs should has the same characteristic. But, there is a few differences between those drugs especially in pharmacokinetics, so that it could affect the toxicity and efficacy of the drugs. One of the ways to measure the degree of organ damages is reduced glutathione level (GSH). Goals of this research is to find is there any different toxic dose generic with branded amoxicillin measured by reduced glutathion rat liver. These research is experimental studies that consist 27 rats which divided into 9 groups. There are 6 treatment groups: generic (A=205,6mg/kgW, B=411,2mg/kgW, C=822,4mg/kgW) and branded groups (D=205,6mg/kgW, E=411,2mg/kgW, F=822,4mg/kgW) and 3 control groups. the result of these research is there is differences between toxic dose in generic and branded groups: A-D groups and B-E groups with p<0,05. While in C-F groups there is no significances differences with p>0,05. Based on this research, concluded that there is differences in toxic dose of generic and branded amoxicillin against GSH rat liver tissue.

Keywords: amoxicillin, generic drug, branded drug, reduced glutathione