

## ABSTRACT

Najla Athallah Khairunnisa. 24020118140069. **Kidney Microanatomy of White Rats (*Rattus norvegicus* L.) Hyperlipidemia Strain Sprague-Dawley After Administration of Ethanol Extract of Mahogany Seeds (*Swietenia mahagoni* L. Jacq).** Under the guidance of Sri Isdadiyanto and Agung Janika Sitasiwi

The aim of this study was to discover the effect of mahogany seeds (*Swietenia mahogani* L. Jacq) ethanol extract administration towards the kidney microanatomy of hyperlipidemic white rats (*Rattus norvegicus* L.) Sprague-Dawley strain. The method of this research was giving the mahogany seeds ethanol extract orally using sonde needle for four weeks. The observed parameters in this research were kidney weight, glomerular diameter, bowman's capsule thickness, proximal cortical tubule diameter, proximal cortical tubule epithelial cell thickness, distal cortical tubule diameter, and distal cortical tubule epithelial cell thickness. The data was analyzed using ANOVA and Kruskal-Wallis test. The result of this research showed that the administration of mahogany seeds ethanol extract with a concentration of 14mg/200gBB could reduced the glomerular diameter, bowman's capsule thickness, and distal cortical tubule diameter, concentration of 28mg/200gBB could reduced proximal cortical tubule epithelial cell thickness and distal cortical tubule epithelial cell thickness, and concentration of 56mg/200gBB could reduced kidney weight and proximal cortical tubule diameter. It can be concluded, that mahogany seeds ethanol extract could maintain the kidney microanatomy of hyperlipidemic white rats.

*Keywords: Microanatomy, hyperlipidemia, white rats, mahogany seeds (Swietenia mahagoni L. Jacq.).*