

In vivo Antiplatelet Activity Test of Wet Extract of *Mimusops elengi* L.'s Leaves on DDY Strain Mice as an Effort to Treat Atherosclerosis

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Abstract : Coronary Artery Disease (CAD) is one of the deathliest diseases which is caused by atherosclerosis. Atherosclerosis is a disease that plaque builds up inside the arteries. Plaque is made up of fat, cholesterol, calcium, platelet, and other substances found in blood. The current treatment of atherosclerosis is to provide antiplatelet therapy treatment, but such treatments often cause gastrointestinal irritation, muscle pain and hormonal imbalance. *Mimusops elengi* L.'s leaves can be utilized as a natural and cheap antiplatelet's source because it contains flavonoids such as quercetin. Antiplatelet aggregation effect of *Mimusops elengi* L.'s leaves' wet extract was measured by bleeding time on DDY strain mice with the test substances were given orally during the period of 8 days. The bleeding time was measured on first day and 9th day. Empirically, the dose which is used for humans is 8.5 g of leaves in 600 ml of water. This dose is equivalent to 2.1 g of leaves in 350 ml of water for mice. The extract was divided into 3 doses for mice: 0.05 ml/day; 0.1 ml/day; 0.2 ml/day. After getting the percentage of the increase in bleeding time, data were analyzed by analysis of variance test (Anova), followed by individual comparison within the groups by LSD test. The test substances above respectively increased bleeding time 21%, 62%, and 128%. As the conclusion, the 0.02 ml/day dose of *Mimusops elengi* L.'s leaves' wet extract could increase bleeding time better than clopidogrel as positive controls with 110% increase in bleeding time.

Keywords : antiplatelets, atherosclerosis, bleeding time, *Mimusops elengi*

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