

## Documents

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**Phenolic-rich baccaurea angulata modulates inflammatory biomarkers of atherosclerosis**

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**Abstract**

**Purpose.** Cardiovascular disease (CVD) is the leading and the most critical type of chronic disease. Atherosclerosis is the most common cause of CVD. Inflammation has been progressively acknowledged as a vital and central player in the pathophysiology of atherosclerosis. *Baccaurea angulata* is an underutilized fruit of the island of Borneo. It was obtained from Bau, Sarawak, Malaysia. In our previous studies, *B. angulata* did not only increase antioxidant enzyme activities, but also slowed the lipid peroxidation process in high-cholesterol-fed rabbits. It was hypothesized that *B. angulata* fruit would exert an anti-inflammatory effect. This study, therefore, aimed at evaluating and comparing the effects of three different *B. angulata* whole fruit (WF) juice doses on 11 serum inflammatory biomarkers of atherosclerosis. **Methods.** Thirty-five male New Zealand white rabbits were divided into seven groups (n=5). Group CH was fed 1% cholesterol diet only, group C1 was fed 1% cholesterol diet and 0.5 ml/kg/day *B. angulata* WF juice, group C2 was fed 1% cholesterol diet and 1.0 ml/kg/day *B. angulata* WF juice, group C3 was fed 1% cholesterol diet and 1.5 ml/kg/day *B. angulata* WF juice, group N was fed standard pellet only, group N1 was fed standard pellet and 0.5 ml/kg/day *B. angulata* WF juice, and group N2 was fed standard pellet and 1.0 ml/kg/day *B. angulata* WF juice for 12 weeks. **Results.** The administration of the various juices reduced the concentrations of induced serum inflammatory biomarkers. **Conclusion.** This protective effect of *B. angulata* fruit against cardiovascular risk might be due to its polyphenol content. © 2018 Muhammad Ibrahim et al.

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