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EVALUATION OF THE AMELIORATIVE EFFECT OF THE PHILIPPINE NATIVE BLUEBERRY *Vaccinium myrtoides* (Blume) Miq. FRUIT EXTRACT AGAINST CYCLOPHOSPHAMIDE-INDUCED HEPATOTOXICITY IN MICE

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ABSTRACT – The Philippines is home to several plant species, some of which have economic and medicinal values. Exploring foods rich in polyphenols, such as members of the plant genus *Vaccinium* (e.g, blueberries), have antioxidant activity with protective effects against hepatotoxicity. This study examined the possible hepatoprotective effect of Philippine native blueberry *Vaccinium myrtoides* (Blume) Miq. crude ethanolic fruit extract (BBE) against cyclophosphamide-induced liver toxicity in mice. Two concentrations of BBE were tested. Adult male ICR mice were randomly sorted into four (4) groups, namely: 1. Control Phosphate Buffered Saline [(PBS), 1% body weight (BW)]; 2. Cyclophosphamide [(CP), 150 mg/kg BW]; 3. Low dose of crude blueberry extract [(BBE1), 100 mg/kg BW] + CP; and 4. High dose of crude blueberry extract [(BBE2), 400 mg/kg BW)] + CP. Results revealed that CP and BBE1+CP treatments had a significant increase in liver weight on day 14 versus day 7. This could be due to the damage from CP exposure. Histopathological scoring showed that administration of BBE treatments showed a visible reduction of necrosis and steatosis compared to those given only CP, even if recorded liver lesion scores were statistically equal due to the limited number of animals used. Present findings suggest the potential of *V. myrtoides* crude extract in ameliorating the hepatotoxic effects of cyclophosphamide. Hence, this pioneering study on the antioxidative activity of a Philippine native blueberry can serve as a springboard for further examination of its hepatoprotective property.

Keywords: antioxidant, blueberry, hepatoprotection, Philippine native plants, ROS scavenging activity, Vaccinium myrtoides

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