

P-47**Anticoagulant Activity of *Averrhoa Bilimbi* Linn in Normal and Alloxan-Induced Diabetic Rats**

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Hypercoagulation, which is often associated with diabetes mellitus may lead to several health problems such as thrombosis, stroke and heart attack. A plant with an anticoagulant effect would be beneficial to counteract these problems. An ethanolic extract of leaves and fruits of *Averrhoa bilimbi* Linn (250 mg/kg) was orally administered to normal and diabetic *Wistar* rats for 14 consecutive days. Samples of blood were then withdrawn after 14 days and centrifuged (5000 rpm, 15 min) to obtain the plasma. Thrombin and clotting time assays were carried out using a microtitre plate reader. Bovine thrombin and a standard thrombin substrate, S2238 were used for comparisons in the thrombin assay. Two different methods were carried out for clotting time assay which is thrombin-induced and CaCl₂-induced clotting time assays. The present study found that ethanolic extract of the leaves and fruits of *A. bilimbi* showed significant anticoagulant effect on rats ($P < 0.05$). The high level of oxalic acid in *A. bilimbi*, which range from 10.5 to 14.7 mg/g in green, unripened fruit and 8.45 to 10.8 mg/g in ripe fruit could provide the anticoagulation effect since oxalic acid is a metal cation chelator. Oxalate binds to blood calcium, removing calcium ion from the blood, thus inhibiting the clotting process.

Keywords: *Averrhoa bilimbi* Linn, anticoagulant, thrombin assay, clotting time.
