

**034 HEMATOLOGIC EFFECT OF AVERRHOA BILIMBI (KAMIAS) ETHANOLIC FRUIT EXTRACT**

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**Background** Clinical laboratories employ every the use of anti-coagulant. The most common test is Complete blood count (CBC) testing which requires anticoagulant, EDTA. It is synthetically made and expensive (Dayaganon *et al.* 2014). Averrhoa bilimbi (kamias), contains oxalic acid (Daud *et al.* 2013), may be an alternative anticoagulant.

**Objectives** The study deemed to examine the CBC results and microscopic assessment of blood treated with kamias ethanolic fruit extract (KEFE) (2 mg/mL, 3 mg/mL and 4 mg/mL), and EDTA-treated blood.

**Methods** Significant difference of the means of CBC parameters were assessed. This is an experimental research wherein blood were collected from volunteers with normal CBC and no cardiovascular diseases. 16 specimens were tested.

**Result** Macroscopic clotting time of the blood with KEFE showed no visible coagulation for concentrations of 3 mg/mL and 4 mg/mL even after 180 minutes of observation, while the blood with 2 mg/mL and blood without treatment showed a clot within 15 minutes. The results on CBC parameter showed significant difference only in platelet count between groups ( $p > 0.000$ ); and the rest of the parameters were insignificant. The microscopic evaluation of blood-stained smears were comparable to EDTA blood-stained smears.

**Conclusion** Given with the results in this study, the KEFE exhibited anticoagulation activity with insignificant difference in the hematologic effects. The KEFE may be an alternative anti-coagulant for CBC testing.