Averrhoa bilimbi Extract as an Alternative Anticoagulant for Manual Complete Blood Count

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Abstract: This study was designed to determine whether Averrhoa bilimbi extract can be used as an alternative anticoagulant for manual complete blood count (CBC) in the hematology clinical laboratory instead of Ethylenediaminetetraacetic acid (EDTA), the recommended anticoagulant for CBC. Blood from 15 volunteers was extracted and placed in EDTA-anticoagulated tubes and tubes with Averrhoa bilimbi extract. Samples from both tubes were tested for CBC. Using independent t-test the study revealed that there is no difference in the red blood cell (RBC) count, white blood cell (WBC) count, hemoglobin, hematocrit, and a 3-part differential of EDTA anticoagulated blood and blood with Averrhoa bilimbi extract as anticoagulant. The morphology of lymphocytes and monocytes were not affected, however, the granulocytes showed cytoplasmic distortion and vacuolation in the Averrhoa bilimbi extract.

Keywords: Averrhoa bilimbi, complete blood count, anticoagulant