

Anticoagulant Activity of *Amaranthus viridis*

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Abstract

Anticoagulant is essential to stop the natural clotting of collected blood, or else it will be unsustainable for tests, particularly the complete blood count (CBC). Complete Blood Count is the most often requested test on hematology laboratory. Ethylenediamine tetraacetic acid (EDTA) is considered to be the best anticoagulant for the said test. The purpose of the study was to determine if extracts of *Amaranthus viridis* can be used as a potential alternative blood anticoagulant. The study used various concentrations of the *Amaranthus viridis* extract. The anticoagulant activity was investigated through the observation of clot in the samples being tested. Moreover, blood samples with the extract were also tested for complete blood count on a certain period of time and was compared to the results of EDTA blood. Results showed *Amaranthus viridis* extract was comparable to EDTA in effectively preventing the blood from clotting. Moreover, results of complete blood count showed no significant differences as compared to the result of EDTA blood, except for the results of the platelet count and WBC count. WBC counts were still within normal range after two hours of testing. Thus, the study concluded that *Amaranthus viridis* extract is a potential laboratory anticoagulant and can be utilized for complete blood count but only for the first two hours.

Keyword: *EDTA, Anticoagulant, Amaranthus viridis, complete blood count*