Lactuca sativa Extract as an Alternative Procoagulant for Blood Analytes

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Abstract: Delay in the reporting of results of clinical laboratories may be accounted in the pre-analytical phase. In the pre-analytical phase, a key factor is the clotting time of blood collected for serum testing, and current blood collection tubes (with clot activator and gel separation) that require a recommended 30 minute standing time for clotting. There are limited studies to evaluate the effectiveness of *Lactica sativa* as pro-coagulant on blood analytes. The study aimed to investigate the effectiveness of *Lactuca sativa* extract as an alternative pro-coagulant that could hasten the coagulation of blood prior to testing which is also comparable to the BD vacutainer serum separation tube as the control. Data were analyzed to determine the clotting time of *Lactuca sativa* with different concentrations. Data were obtained from five normal female patients by mixing volumes of freshly collected blood with different amounts of *Lactuca sativa* extracts (25 µL, 50 µL, 75 µL and 100 µL) and were evaluated as pro-coagulant by constantly checking for clot formation then further tested for certain blood analytes. The results showed that *Lactuca sativa* extract hastened the coagulation of blood with the smallest amount (25 µL) of extract rendering the fastest clotting time. The result implies that *Lactuca sativa* extract possesses a pro-coagulant activity and could potentially be used as an alternative for testing of Fasting Blood Sugar, Cholesterol, Triglyceride, LDL cholesterol, HDL cholesterol and Uric Acid in all four different concentrations.

Keywords: *Lactuca sativa*, pro-coagulant, blood analytes