

**Title:**

Sonoclot evaluation of whole blood coagulation and single and multiple dose subcutaneous heparin therapy in healthy adult dogs

**Investigators:**

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**Study description:**

The purpose of the study is to verify the accuracy of various clinical diagnostic machines in healthy dogs. The machine to be tested is the Sonoclot, a whole blood coagulation analyzer. This machine provides information about the kinetics of blood clot formation in dogs, and will be compared to another similar machine, the TEG (thromboelastograph), in addition to routine tests of clotting function. Healthy normal dogs will be recruited for the study, which initially aims to devise a normal range for the Sonoclot. Following the analysis of data from normal dogs, the effect of either low molecular weight or unfractionated heparin on the Sonoclot tracing of normal dogs will be studied. The testing of these blood samples will be paid for by the study.

**Duration of study:**

The study is ongoing and will continue until 40 - 50 dogs are enrolled for determination of the normal range.

**Potential benefits to veterinary medicine:**

Heparin therapy is difficult to monitor in veterinary patients, largely due to the wide variation in response to a given heparin dose. Due to a different testing methodology, the Sonoclot may be a more accurate method to evaluate canine patients receiving heparin. Accurate monitoring will better allow the clinician to tailor the dose of heparin to the needs of the patient. The Sonoclot has not yet been evaluated for use in small animal veterinary species, although it has been used to evaluate septic foals and adult horses with colic. Many schools of veterinary medicine are incorporating the use of viscoelastic coagulation testing, so the results of this study are particularly relevant, especially for defining the most appropriate use for these new machines, as well as monitoring the use of heparin in veterinary patients