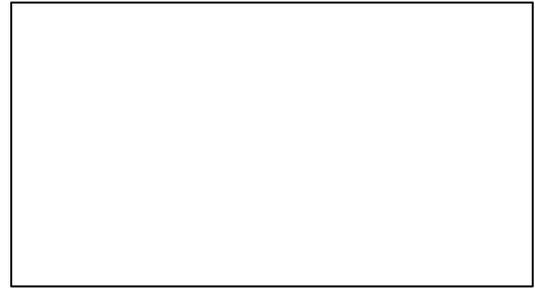




Virginia Polytechnic Institute and State University
Veterinary Teaching Hospital
Address: 245 Duck Pond Dr., Blacksburg, Virginia 24061-0443
Phone: 540-231-4621 | Fax: 540-231-9354



Clinical Research Project Client Consent Form

Study Title: *Clinical investigation of a modified passive leg raise maneuver in anesthetized dogs during spontaneous hypotension*

Principal Investigator: *Vaidehi V. Paranjape*
vparanjape@vt.edu

One of the missions of the Virginia-Maryland College of Veterinary Medicine is to create, disseminate and apply medical knowledge through discovery, learning, and engagement. You are invited to participate in this mission by enrolling your animal in a clinical research study. Your participation is entirely voluntary, and you may withdraw your animal from the study at any time by notifying the Principal Investigator. There is no penalty if you choose not to participate.

Study Purpose:

When dogs are anesthetized for surgeries and other procedures, veterinarians typically measure the patient's blood pressure to determine if the patient's heart is pumping blood at a healthy rate. If the patient's blood pressure falls too low, this lets us know that additional fluids or medications may be needed. However, control of blood pressure is affected by various physiologic factors, and hence it doesn't always accurately correlate with cardiac output, which is the global blood flow in the body perfusing and oxygenating tissues and organs. In this study, we will be monitoring cardiac output using two advanced techniques that have been validated in humans and enhance patient care and outcome in anesthetized human patients. These two non-invasive technologies are electrical velocimetry (ICON) and esophageal doppler (CardioQ) which will be used to monitor cardiac output during hemodynamic treatment of hypotension (if it occurs) with treatments like intravenous fluids or passive leg raise maneuver. Passive leg raise maneuver is commonly used in anesthetized human patients to decide how much fluids to administer in order to optimize cardiac output. Dr. Vaidehi Paranjape at Virginia Tech has demonstrated the utility of passive leg raise maneuver in dogs and using it in clinical patients will only enhance quality of patient care and prevention and management of hypotension. We also hope that using a more accurate measurement of cardiac output may help clinicians make better determinations about when anesthetized dogs may need more cardiovascular support to maintain a healthy cardiac output.

Study Design/Procedures:

While your dog is anesthetized as part of a routine hospital procedure, such as an orthopedic surgery, we will use advanced non-invasive cardiac output monitoring in addition to the standard anesthetic monitoring such as ECG, Blood pressure, temperature, oxygenation and ventilation recordings. We will closely monitor all these variables as well as cardiac output measurements from the start to the end of anesthesia. If the patient develops hypotension under anesthesia (hypotension is the most common anesthetic complication in canines under anesthesia), we will instantly use hemodynamic support such as intravenous IV fluids +/- inotrope/vasopressor support. We will also use the passive leg raise maneuver to test the patient's response to this hemodynamic support. We will be recording the cardiac output measurements throughout. After collection of the data from the canine population, we will be analyzing cardiac output values for its correlation with blood pressure to better understand how we can improve or best maintain the patient's circulatory function under anesthesia.

Risks and Benefits:

There are no additional risks to your dog from participating in this study. The electrical velocimetry and esophageal doppler are noninvasive techniques, and hence are extremely safe and easy to use. Dogs in the study will benefit from the advanced cardiac output monitoring during anesthesia which will only improve and enhance quality of patient care and management under anesthesia.

Study Costs and Compensation:

There is no compensation for participating in this study. We hope that the results of the study will largely benefit quality of patient care and anesthetic management in future canine patients who are undergoing anesthesia.

Confidentiality:

The data collected in the course of this study is confidential. In any publication or presentation of the study data, we will not include information that would make it possible to identify a research participant. Research records will be kept in a secure location; only researchers will have access to the records.

Statement of Consent:

In giving my consent by signing this form, I acknowledge that I have been informed of the purpose and nature of this study and its associated procedures, as well as any possible side effects.

I have read and understood the above information. I have been given the opportunity to ask questions and receive answers, and I consent to participate in the study. I further certify that I am the owner (or duly authorized agent of the owner) of _____ .

(Animal's name)

Owner or Agent Signature: _____ Date: _____

Owner or Agent Printed Name: _____

Attending Clinician Signature: _____ Date: _____

Attending Clinician Printed Name: _____

Please don't hesitate to contact us if you have any questions or concerns about this study.

The research and procedures have been reviewed and approved by the Virginia Tech Institutional Animal Care and Use Committee and the Virginia-Maryland College of Veterinary Medicine Veterinary Teaching Hospital Board.

If you have any questions or concerns regarding the study and would like to talk to someone other than the researchers, please contact:

Hospital Director,
Veterinary Teaching Hospital
Virginia-Maryland College of Veterinary Medicine
Address: 245 Duck Pond Dr., Blacksburg, Virginia 24061-0443
Phone: 540-231-4621

You will be given a copy of this form to keep for your records.