

Comparison of Two Surgical Techniques for the Treatment of Brachycephalic Airway Disease in French Bulldogs

Dr Ameet Singh

WHAT IS A VETERINARY CLINICAL TRIAL?

A veterinary clinical trial is a research study involving client-owned animals with the ultimate goal to advance animal and human health care! An **interventional clinical trial** allows us to measure outcomes through data and sample collection of a new or novel therapeutic approach compared to one that is standard of care. These studies evaluate new and improved ways to prevent, diagnose or treat diseases.

What is BOAS?

Brachycephalic Obstructive Airway Syndrome (BOAS) is a combination of upper airway problems caused by the body conformation of "brachycephalic" breeds dogs with short noses, flat faces, and high domed foreheads. This includes French Bulldogs, Pugs and English Bulldogs. Dogs with BOAS may present with loud snoring, open mouth breathing, respiratory distress, and exercise intolerance due to multilevel obstruction of the airways. This syndrome can severely affect a dog's quality of life. It is a progressive condition and, in some cases, may be life-threatening. Surgical management for BOAS is often recommended.

What is the Purpose of this Study?

The standard of care surgery for BOAS is a technique called soft palate resection (staphylectomy), where the palate (back of the roof of the mouth) is stretched and the excess tissue removed. Often following surgery, some dogs still suffer from breathing difficulty which has prompted modifications that aim to provide greater airway openings. One of these proposed procedures is the folded flap palatoplasty. The purpose of this study is to compare clinical outcome, by means of an exercise tolerance test and CT anatomy, between staphylectomy and folded flap palatoplasty for the treatment of BOAS in French bulldogs.

INCLUSION CRITERIA

French Bulldogs <5 years of age, with breathing difficulties as a result of BOAS and interested in pursuing CT and surgery will be eligible for this study.

EXCLUSION CRITERIA

Other brachycephalic breeds and French Bulldogs >5 years of age and/or dogs that have previously had surgery for BOAS and/or dogs undergoing concurrent surgery for hiatal hernia will not be eligible to participate in this study.

Financial Incentives

The cost of the exam fee, head CT scan and repeat exercise tolerance test 3-6 months after surgery, will be covered by the study.

This study is generously funded by the Lulu Clubb Fund and the Crusoe Fund.



During your consultation with the OVC Surgery service, the research team will ask you to complete a short study questionnaire about your dog. A 3-minute exercise tolerance test (a brisk walk through the hospital) will also be completed to assess your dog's respiratory effort.

The evaluation will continue with standard BOAS testing including thoracic (chest) radiographs and a video-fluoroscopic esophageal swallowing study. During the swallowing study, your dog is given a liquid food and the movement of the food through your dog's throat, while standing, is monitored. There is no sedation involved for the swallowing study.

Your dog will have surgery the next day. Prior to anesthesia, the surgeon will complete an airway exam to confirm the severity of BOAS and to grade the degree of laryngeal collapse.

Under anesthesia, but prior to surgery, your dog will undergo a computed tomography (CT) scan and thoracic radiographs (if not performed previously) for surgical planning.

Your dog's surgery for the treatment of BOAS will be randomized to either a traditional staphylectomy or a folded flap palatoplasty. If required, the nostrils and any other abnormalities (everted tonsils, everted laryngeal saccules, etc) will be corrected.

Following surgery, your dog will recover in ICU under careful monitoring and be discharged to your care ~48 hours later. Postoperative care instructions and any necessary medications will be provided to you by your dog's clinician.

Approximately 3-6 months following, a recheck appointment will be booked for your dog to repeat the head CT and exercise tolerance test.

At this time, we also ask that you to complete a questionnaire about your dog's recovery.



UNIVERSITY \$GUELPH ONTARIO VETERINARY COLLEGE CLINICAL TRIALS



Questions about this study? Please contact: ovc.clinicaltrials@uoguelph.ca