

**BIOMEDICAL & VETERINARY SCIENCES
GRADUATE PROGRAM**



ANNOUNCES

The Master of Science Seminar and Examination of

Cheslymar Garcia, DVM

**“Assessment of Bacteriuria and Surgical Site
Infections in Dogs with Cranial Cruciate Ligament
Disease”**

Thursday, May 9th, 2019

9:00 AM

Classroom 100

Bio



After graduating from Cornell University with a Bachelor's degree in Animal Science, Cheslymar Garcia attended veterinary school at Ross University School of Veterinary Medicine and attended Michigan State College of Veterinary Medicine for her clinical year. After graduating in 2015, she accepted a small animal medicine and surgery internship position at Virginia-Maryland College of Veterinary Medicine. Dr. Garcia continued at Virginia Tech as a small animal surgery resident and a graduate student in the Biomedical and Veterinary Sciences program. Starting in August, Dr. Garcia will continue her career at Animal Emergency Medical Center in Torrance, California.

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Lay Language Abstract

Objectives: (1) To determine the prevalence of asymptomatic bacteriuria in dogs with cranial cruciate ligament disease. (2) To determine the incidence of surgical site infections in dogs with and without asymptomatic bacteriuria.

Methods: A prospective clinical cohort study of 156 healthy client-owned dogs with cranial cruciate ligament disease lacking clinical signs of lower urinary tract disease. Urine samples were collected by cystocentesis for urinalysis and urine culture. Age, breed, sex, body weight, body condition score, limb affected, duration of lameness, urinalysis and urine culture results were recorded for each patient. Follow-up was performed at 2 weeks, 4 weeks, 8 weeks, 6 months, and 12 months to document persistence or progression of bacteriuria and to document signs of surgical site infection following surgery.

Results: In 156 dogs, the prevalence of asymptomatic bacteriuria was 7.1%. The most common bacterial isolate was *Escherichia coli*. Patient sex, urine white blood cells/ high-powered field, and presence of bacteria on urinalysis were significantly different between dogs with and without asymptomatic bacteriuria. No male dogs had asymptomatic bacteriuria.

Only 60% of dogs with bacteria present on urinalysis had growth on urine aerobic culture. No significant difference was found in age, body weight, body condition score, duration of lameness, limb affected, or other urinalysis values between dogs with and without asymptomatic bacteriuria. Of the 46 dogs that had 8-week repeat cultures, 2/3 dogs with asymptomatic bacteriuria had negative urine cultures and 3/43 without asymptomatic bacteriuria had positive urine cultures. Prevalence of asymptomatic bacteriuria in dogs presenting with cranial cruciate ligament disease was similar to previously reported values. This suggests that dogs with cranial cruciate ligament disease are not more prone to asymptomatic bacteriuria. Thus far, results suggest that asymptomatic bacteriuria is a non-progressive condition that is not likely to cause detrimental effects to surgical sites.

Presentations

Posters^{ISSEP}

Garcia, C (presenter), *Assessment of Bacteriuria and Surgical Site Infections in Dogs with Cranial Cruciate Ligament Disease*. 30th Annual Research Symposium, March 2018, Blacksburg, VA

Intern/Resident Seminar series (Virginia-Maryland College of Veterinary Medicine)^{ISSEP}

- **Canine Elbow Dysplasia: A surgical perspective** (January 2019)
- **Asymptomatic Bacteriuria: Prevalence in Veterinary Medicine** (February 2018)
- **Surgical Site Infections in Orthopedic Patients: A Literature Review** (September 2017)
- **Surgical Techniques for Repair of Ruptured Cranial Cruciate Ligament in Dogs** (April 2017)
- **Patellar Groove Replacement: A Surgical Alternative for Patellar Luxations** (March 2017)
- **Excise to Cure: Margin Determination of Mast Cell Tumor** (October 2016)
- **Another Look at Canine Laryngeal Innervation** (January 2016)
- **A Technique Providing Insight to New Innervations: The Sihler's Stain** (September 2015)

Examination Graduate Committee

Major Advisor/Chair:

Sabrina L. Barry, DVM, DACVS-SA
Clinical Assistant Professor- Small Animal Surgery
Department of Small Animal Clinical Sciences

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Dogwood Veterinary Surgical Care

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