



RESEARCH PROGRESS REPORT SUMMARY

Grant 02107: Landmark Clinical Trial to Establish the Evidence-Based Use of Regenerative Medicine to Treat Tendon Injury in Dogs

Principal Investigator: Jennifer Barrett, DVM, PhD

Research Institution: Virginia-Maryland Regional College of Veterinary Medicine

Grant Amount: \$28,026.14

Start Date: 7/1/2014 **End Date:** 11/30/2022

Progress Report: FINAL

Report Due: 11/30/2022 **Report Received:** 3/15/2023

(The content of this report is not confidential and may be used in communications with your organization.)

Original Project Description:

This study will evaluate the effectiveness of Platelet-Rich Plasma (PRP) and stem cells in the treatment of the most common sporting injury in dogs: supraspinatus tendinopathy (similar to the rotator cuff injury in humans). Tendon injuries in dogs often progress undiagnosed and result in chronic lameness and pain. Ultimately, unassisted tendon healing results in scar formation and reduced function of the joint and surrounding muscle tissue. PRP and stem cell therapies aim to accelerate and promote healing through tissue regeneration and reduced scarring. The investigators will conduct a randomized, placebo-controlled clinical trial evaluating the effectiveness of PRP, adipose-derived, cultured stem cells (ASC) and commonly used stromal vascular fraction (SVF) cells to directly compare efficacy of intratendinous injection of ASC versus SVF, both of which are currently commercially available despite having limited scientific evidence of efficacy. The investigators hope to identify an effective treatment to supraspinatus tendon injury.

Publications:

None at this time.

Presentations:

None at this time.

Report to Grant Sponsor from Investigator:



Due to COVID-19, laboratory and hospital closure halted the trial until January 2021. Since that time, the researchers have not had owners with appropriate cases agree to enroll in the study. Major sources of cases are athletic dogs such as agility dogs. Due to COVID-19, agility and other trials were halted. When starting back up in late Spring/early summer of 2021; the formerly busy caseload for supraspinatus tendinopathy has not yet returned. The researchers anticipated a lag between the beginning of agility trials and injury to the canine athlete's shoulders, however, within the last 24 months, that has not proven to be the case.

Due to the many delays, and the much lower than expected caseload, the researchers and their organization determined to withdraw the clinical trial for supraspinatus tendinopathy. The research team will continue to monitor any future cases of supraspinatus tendinopathy to determine if a future study is warranted. The investigators appreciate the trust of the donors who support this study and the research of musculoskeletal conditions and disease of dogs in the future through the AKC Canine Health Foundation.