

The Effect of Collagen-Elastin Hydrogel Microparticles (CEHM) on Pain and Function Secondary to Hip Osteoarthritis in Dogs (Short Abstract)

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INTRODUCTION

Osteoarthritis (OA) is the most prevalent musculoskeletal disease in dogs and represents about 80% of lameness cases. Intra-articular therapies are used for their property of carrying less systemic adverse events and improved efficacy. Collagen-Elastin Hydrogel Microparticles (CEHM*), a veterinary medical device, is manufactured from a purified composition of collagen, elastin, and heparin which self-assembles and provides micro-cushioning within the joint.

MATERIALS AND METHODS

Using a Simon's 2-stage design, an initial cohort of 14 dogs was enrolled into the study if they were skeletally mature, demonstrated hip pain without pain in other joints, and had radiographic OA in 1 or both hips.

Patients were put under general anesthesia and synovial fluid of the affected hip(s) was removed by arthrocentesis to 2 mL. CEHM was injected until resistance was felt. Each examination day (day 0, 28, 56, and 84), a physical exam, lameness, Canine Brief Pain Inventory (CBPI), Pain Trace assessment, and coxofemoral flexion/extension goniometry were performed.

RESULTS

Nine dogs have completed the study to date. At day 84, 7 of 9 patients (77.8%) had a greater than 3-point reduction in total CBPI score, and 7 of 9 patients (77.8%) had improved hip extension on goniometry. All 9 patients (100%) had improved visual lameness scores and quality of life assessments.

CONCLUSIONS

All patients demonstrated improvement in the first stage of the study, with the majority showing improvement in multiple of the endpoint variables. These data support CEHM being an efficacious and low-risk intra-articular option for patients with hip OA and allows for accrual into the second stage of the study.

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