

Study of a Intra-Articular Polymer Beads for Hip Dysplasia in Dogs

Purpose of study

Computer modeling has evaluated the effects of the beads on synovial fluid flow characteristics in the hip joint, with positive effects of increasing the flow of synovial fluid across the femoral acetabular interspace, effectively dispersing the synovial fluid which may increase clinical function of arthritic hip joints. A previous study evaluated the safety and joint tissue characteristics of 2 mm soft polymer beads in rabbit stifle (knee) joints and showed no deleterious effect. The current proposal is an in vivo study to assess the safety and clinical efficacy of soft 2 mm polymer beads and/or Hyaluronic Acid (HA) in clinical patients (dogs) with hip osteoarthritis.

Inclusion criteria

- Must be clinically healthy;
- Must be between 1-8 years of age;
- Must weigh between 15 and 40 kg;
- Must have radiographic and clinical evidence of moderate OA secondary to hip dysplasia
- Must have lameness and owner-identified mobility impairment

Exclusion criteria

- Dogs that do not have confirmed osteoarthritis of the hip
- Other orthopedic conditions such as cranial cruciate ligament rupture, luxating patella, or luxation of the hip joint.
- Dogs that receive analgesics other than an NSAID or gabapentin
- Immune mediated polyarthropathy or other immune-mediated disease
- Intervertebral disc disease or other clinical neurologic disease;
- Clinically significant abnormal hematological or blood chemistry values



- No impending changes to dog's lifestyle (e.g. boarding, moving, new pets added to household). Dogs will be fed their regular commercial dry and/or wet diet with no changes during the trial

Study procedure

Participants will be randomly assigned to treatment groups of hyaluronic acid (HA) injection, polymer bead injection, or HA and polymer bead injection. Injections will be performed under arthroscopic visualization with a needle arthroscope under sedation and local anesthetic. Assessments, including force plate evaluation of gait, and clinical evaluations, will be performed every 2 weeks for 8 weeks, and 4 months after injection. Owners will complete questionnaires to document home function.

Study Incentive

The study will cover all study expenses, including radiographs and blood work. If compliance with the study and all study visits are completed, owners will receive a \$200 honorarium.

For Further information

Josh Burnette, DVM

Darryl Millis, DVM, MS, DACVS, DACVSMR, CCRP

Jessica Montoya, AAS, LVMT, CCRP, VTS-Surgery

utvetortho@utk.edu | 865-974-8387