

Six Month Evaluation of the Cupless Hip System

Purpose

To establish the safety and efficacy of a Partial (Cupless) Hip Replacement System in the management of lameness arising from the coxofemoral joint

Background

The traditional total hip system consists of a prosthetic ball and cup implant to fully replace the ball and socket joint of the hip. Although this technique can have an excellent outcome in terms of comfort and function, there is risk for significant complications. In addition, the total hip replacement implants are expensive, have the potential to wear out over time, and the procedure itself requires extensive specialty surgical training. The cupless hip system represents an alternative to the total hip replacement, which uses the patient's own bone for the "cup" instead of an implant. This significantly decreases the cost and difficulty of the procedure, so it may afford good function and comfort without the same complications or expense. In this prospective clinical trial, eligible canine patients will be treated using the cupless hip system and their 6-month outcomes monitored.

Eligibility

- Lameness associated with discomfort arising from coxofemoral joint disease.
- The patient should be of suitable size to accommodate the range of prostheses available. Determination will be made by radiographic analysis at the Veterinary Teaching Hospital in Blacksburg.
- Owner's agreement to comply with all post-operative management instructions.

Exclusion

- The presence of other active orthopedic pathology in the same limb (e.g. Cranial Cruciate Pathology, Hock DJD, Degenerative Lumbosacral Stenosis).
- A history relating to chronic or recurrent infective foci such as Gingivitis, Otitis Externa, Pyoderma, Anal Sacculitis.

Study Design

To be included in the study, a patient must be diagnosed with unilateral or bilateral hind limb lameness secondary to hip dysplasia by orthopedic exam and with radiographs of the pelvis. Pre-anesthetic bloodwork must be within normal limits to be enrolled. Eligible patients will have the cupless hip performed on the most affected hip. Patients will be dropped off the day prior to surgery or the day of surgery if applicable, and remain in hospital the night after the procedure to be discharged the following day as deemed appropriate by the attending clinician. Patients will have pelvic radiographs taken immediately post-operatively and will be evaluated in hospital prior to discharge. Patients must return in 6 months for a full orthopedic exam and recheck radiographs, and owners will be given a questionnaire to fill out both prior to surgery and at the 6-month recheck. If any complications are suspected prior to 6 months, patients should be evaluated sooner as necessary and any complications recorded.

Compensation

The estimated cost for the cupless hip system is \$3,000-3,500 per side, which includes bloodwork, hospitalization, anesthesia, surgery, implants, and post-operative radiographs. This estimate does not include the recheck visit or unforeseen complications. A traditional total hip procedure costs approximately \$5,000.



The cost of the required 6-month recheck visit will be approximately \$250-350, and includes recheck exam, sedation, and radiographs. If patients return for the 6 month recheck radiographs as prescribed, the costs of the implants will be partially rebated by the company (Kyon Veterinary Surgical Products). The full rebate is approximately \$800.

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