Clinical Study Helps Predict Cruciate Ligament Rupture in Dogs

Cruciate ligament rupture is a common problem in dogs and in human athletes. In dogs, it is an economically important disease. Each year, people in the USA spend over $1 billion treating this condition in their pets. The cranial cruciate ligament (CCL) - anterior cruciate ligament (ACL) in humans - is mainly affected. Ligament rupture leads to lameness with instability of the stifle (knee) joint. This is a degenerative condition in dogs with a genetic component. Our clinical studies have shown development of osteoarthritis in the early phase of the disease in a stable stifle promotes weakening of the CCL and eventual rupture. More than half of dogs that develop CCL rupture in one stifle will develop the same problem in the other stifle within a few years.

In a clinical study conducted through the Comparative Orthopaedic Research Lab, osteoarthritis was graded on radiographs (x-rays) of both stifle in patients undergoing tibial plateau leveling osteotomy (TPLO) treatment for unilateral CCL rupture. Study dogs were followed to determine when a second CCL rupture developed. The degree of osteoarthritis in the contralateral stifle, with early disease, was a significant predictor for risk of a second cruciate rupture. Clinically, the Small Animal Orthopaedic Service recommends all dogs diagnosed with CCL rupture should have bilateral stifle radiographs to determine whether high risk of a second cruciate rupture exists. This knowledge can then help develop an appropriate treatment plan for each patient. Further work studying the genetic contribution to cruciate ligament rupture is an ongoing clinical study.

Why Clinical Studies?

At UW Veterinary Care, our expert clinicians and staff are dedicated to raising the standard of care by using the latest technologies, while also performing research to advance veterinary and human medicine now and in the future. Clinical studies allow us to develop more effective diagnostic and treatment options for patients and many studies offer some financial incentive. Past studies led to the development of new treatments for cancer, orthopedic conditions and fungal disease in cats. Prior to entering any study, the standard of care protocol along with clinical study options are discussed with clients.

Did you Know?

Clinical studies often need healthy animals as “controls” or comparison dogs to determine if a treatment is effective. Studies currently recruiting affected and healthy animals are:

- **Laryngeal Paralysis Genome**
  Labrador & Golden Retrievers > 12years
  Service—General Surgery

- **Urinary Tract Infection**
  Any female dogs
  Service—Internal Medicine

- **Cruciate Disease Genome**
  Labrador Retrievers & Rottweilers > 8 years
  Service—Orthopaedics

For more information, please visit our website: uwveterinarycare.wisc.edu/clinical studies
Clinical Studies for Cancer Patients

UW Veterinary Care’s oncologists and cancer research team are on the cutting edge of finding new treatments for cancer in pets. These studies may lead to new therapies for cancer in people. Osteosarcoma (bone cancer), a common cancer of children and dogs, is often treated with amputation and chemotherapy in our pet population. Adding the drug rapamycin to the chemotherapy protocol may prolong pets’ lives. Another study, avoids amputation and treats cancer pain with TomoTherapy (radiation) in higher but less frequent dosing than is normal.

Cats also benefit from oncology studies. Following up on a similar study in dogs, we are investigating the effectiveness of using a combination of two drugs commonly used to treat cancer: Palladia® (toceranib) and Adriamycin® (doxorubicin). Previous studies have shown that toceranib can reverse resistance to doxorubicin. Cats with a confirmed diagnosis of new or recurrent cancer may be eligible for the study. Clients are responsible for the cost of initial cancer staging and recheck exams. All study related fees are provided at no charge.

Clinical Studies
Frequently Asked Questions

1. What is a Clinical Study?
Clinical studies involve researching new medications, treatments, tests or devices to determine if they improve patients’ health and well-being. Clinical studies may be called clinical trials or clinical research.

2. How can my pet participate?
All studies have specific criteria regarding species of animal, condition to be treated, current medications, etc. Information on the requirements for each study are included on our website. Check back often for new studies to open. Clinical studies are always voluntary. No animals are entered into a study without the full understanding and permission of the client.

3. What are the benefits or risks?
Patients participating in a study may receive treatments not available to the general population. A pet may or may not benefit from this, however, all studies advance scientific knowledge. New drugs and protocols may have side effects and studies may require more frequent visits to the UW Veterinary Care for recheck exams and laboratory tests. All studies are reviewed and require approval by the School of Veterinary Medicine’s Animal Care and Use Committee to assure minimal risk to the patient.

4. What does it cost?
The cost of participation varies with the individual study. Many studies are funded by grants that cover part or all of the treatment costs. All fees are discussed prior to a patient entering a study.