Cranial Cruciate Ligament Rupture – What to Know & Expect

The cranial cruciate ligament (CCL) inside the stifle (knee) joint stabilizes the stifle during weight-bearing and prevents the tibia from moving forwards relative to the femur. In people, it is referred to as the anterior cruciate ligament (ACL) and injury is the common cause of a rupture. In dogs, osteoarthritis within the stifle is the common cause of a rupture – thus why treatment options are quite different to those in humans.

However, like humans, many dogs with CCL rupture tear their meniscus within their stifle. Pain and poor response to pain medication commonly results in surgical removal of the damaged section of the meniscus.

Symptoms: Symptoms such as hind limb lameness and stiffness may be sudden/complete or gradual/partial. Difficulty rising and jumping is common when both stifles are affected. A clicking noise may be heard of the meniscus is torn.

Diagnosis: Examination may reveal muscle wastage, especially over the front of the thigh (the quadriceps muscles). Thickening of the stifle is often palpable - joint flexion/extension may cause pain, enabling detection of instability. Palpation under sedation/anesthesia may be necessary to detect subtle instability of a partial rupture.

Synovial fluid from the stifle may be analyzed to detect possible inflammatory changes (i.e., infection, rheumatoid arthritis).

Treatment: Some small dogs can be managed satisfactorily without surgery. Restricted exercise and monitoring of weight (or diet) are necessary, and anti-inflammatory medications may be prescribed. However, long-term drug therapy should be avoided, if possible, in view of potential side effects. Cases that cannot be effectively managed can be surgical treated.

The surgical procedure performed by our surgeons is the **TPLO (tibial plateau levelling osteotomy)**. Specific x-rays enable the surgeon to assess the tibial plateau and measure angles for surgical planning. A TPLO involves changing the angle of the tibial plateau by cutting the bone, rotating it, and stabilizing it in a new position with a special plate, which makes the repair stronger.

Often patients also have significant pain and lameness from meniscus damage, which is surgically removed (known as a partial meniscectomy) at the same time as the TPLO. For further information, refer to our *TPLO Surgery Fact Sheet*.

Version 01, April 2018