

Biceps Tenosynovitis

What is Bicipital Tenosynovitis?

Bicipital tenosynovitis is inflammation of the biceps tendon and its surrounding tendon sheath just below its attachment on the front part of the scapula (shoulder blade). After originating on the scapula, the tendon crosses the shoulder joint, passing through the biceps groove of the humerus and interconnects with the biceps muscle, which terminates at its attachment on the radius. Inflammation or injury to the biceps tendon can result from chronic repetitive overuse, acute trauma or other degenerative conditions of the shoulder such as chronic osteochondritis dissecans (OCD) or concurrent supraspinatus tendon mineralization. An example of chronic repetitive overuse would be excessive jumping activities.

Diagnosis

Bicipital tenosynovitis usually occurs in middle-aged to older, medium to large breed dogs, but can be diagnosed in any breed at any age. Dogs exhibit an intermittent to constant forelimb lameness that is typically aggravated by exercise. Pain is most often exhibited during hyperflexion of an affected shoulder. Loss of forelimb muscle mass is also a common finding. A presumptive diagnosis of biceps tenosynovitis is made by taking a thorough history, performing a comprehensive physical exam and by reviewing x-rays that may reveal mineralization of the biceps tendon, mineralization within the biceps groove or sclerosis (hardening of the bone seen as increased whiteness on x-rays) below the biceps groove. Ultrasound is often useful to look for structural changes of the biceps tendon. A shoulder joint fluid sample can be obtained to help rule out infectious causes of joint pain, but is often not helpful in making a diagnosis. A definitive diagnosis is made during arthroscopic shoulder exam or by MRI.

Treatment

Medical management including very restricted activity, physical therapy, weight loss and anti-inflammatory medication is typically the initial management recommendation. A steroid can also be injected into the tendon sheath to reduce inflammation focally. Affected patients must be confined to leash-only walks for 6-8 weeks with no jumping or rough play. If there is no improvement with medical management, surgical release of the diseased tendon is often the next recommended course of action. Surgery consists of completely cutting the biceps tendon after arthroscopic joint evaluation. After the tendon is cut it retracts out of the degenerative biceps groove and attaches / heals itself to the humerus resulting in normal forelimb function. A non-steroidal anti-inflammatory medication can be used to reduce inflammation and discomfort associated with existing shoulder arthritis. As with many orthopedic conditions, weight management is one of the pillars to a successful long-term outcome.

