

Bicipital Tenosynovitis

What is Bicipital Tenosynovitis?

Bicipital tenosynovitis is inflammation of the origin of the biceps tendon and its surrounding tendon sheath. The biceps tendon originates from the front part of the scapula (shoulder blade). The tendon crosses the shoulder joint, passes through the bicipital groove of the humerus, and widens into the biceps muscle, which attaches onto the radius. Inflammation of the biceps tendon can result from chronic repetitive trauma, acute trauma, or other degenerative conditions of the shoulder such as chronic osteochondritis dissecans (OCD). An example of chronic repetitive trauma would be excessive jumping activities.

Diagnosis

Bicipital tenosynovitis usually occurs in middle-aged to older, medium to large breed dogs. Dogs exhibit an intermittent to constant forelimb lameness that is typically aggravated by exercise. Pain is exhibited on hyperflexion and occasionally hyperextension of the affected shoulder. Loss of forelimb muscle mass is also a common finding. A presumptive diagnosis of bicipital tenosynovitis is made by taking a thorough history, performing a comprehensive physical exam, and by reviewing x-rays. X-rays 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 may be used to look for structural changes of the biceps tendon or a joint fluid sample may be obtained to help rule out infectious causes of joint pain. A definitive diagnosis is made during arthroscopic shoulder exam.

Treatment

Medical management including controlled exercise, physical therapy, weight loss, and anti-inflammatory medications is the first course of action. A steroid can also be injected into the tendon sheath to locally reduce inflammation. The patient must be strictly rested (leash walks only) for 4-6 weeks with no jumping or rough play allowed. If there is no improvement with medical management, then surgical management is considered. Surgery consists of completely cutting the biceps tendon after arthroscopic joint evaluation. After the tendon is cut and released out of the degenerative biceps groove, it will adhere to the humerus over time affording normal biceps muscle function. Non-steroidal anti-inflammatory medications can be used to reduce inflammation and discomfort associated with existing shoulder arthritis. As with most orthopedic conditions, weight management is one of the pillars to successful long-term management.

