

Fragmented Medial Coronoid Process (FMCP)

What is a Fragmented Medial Coronoid Process?

A fragmented medial coronoid process (FMCP) is a developmental abnormality in which there is a poor fit between the major components that makes up the elbow joint (ulna trochlear notch, humeral trochlea and radial head). This poor fit results in abnormal forces within the joint that can cause excessive cartilage wear and eventual fracture or fragmentation of the medial coronoid process. In some cases the fragmented coronoid will completely separate from the ulna and be free floating within the joint. FMCP is always accompanied by inflammation, pain and lameness with the eventual development of osteoarthritis (OA). The longer the abnormal fit between joint components is left untreated the more irreversible degenerative changes will occur in the joint. This condition is commonly seen in large breed dogs where often both elbows are affected. The first signs of forelimb lameness tend to occur in young dogs that are five to seven months of age where the lameness is usually more severe after periods of heavy activity.

Diagnosis

During physical exam the most common findings are forelimb lameness associated with elbow thickening and pain during joint manipulation. X-rays often reveal early arthritic change and in some cases a fragment can be seen. X-rays are also useful to help eliminate other causes of elbow pain and to quantify the degree of arthritic change. Arthroscopy or advanced imaging such as CT or MRI can also aid in the diagnosis of FMCP.

Treatment

Surgical and / or arthroscopic examination of the joint followed by removal of the FCP is the treatment of choice. During the same procedure frayed cartilage and remaining medial coronoid process that is still fitting poorly with other joint components are also removed. By improving the fit between joint components, abnormal forces within the joint are reduced resulting in a decrease in inflammation and OA progression over time. Surgical intervention is recommended early to decrease the progression of OA thereby improving a patient's long-term quality of life. If surgery is not performed until after significant arthritic change has occurred, the prognosis is much poorer. All dogs with FMCP will develop some degree of OA, but if surgically corrected early the advancement of OA is significantly reduced. Leash-only activity is required for at least 4-6 weeks post-op.

