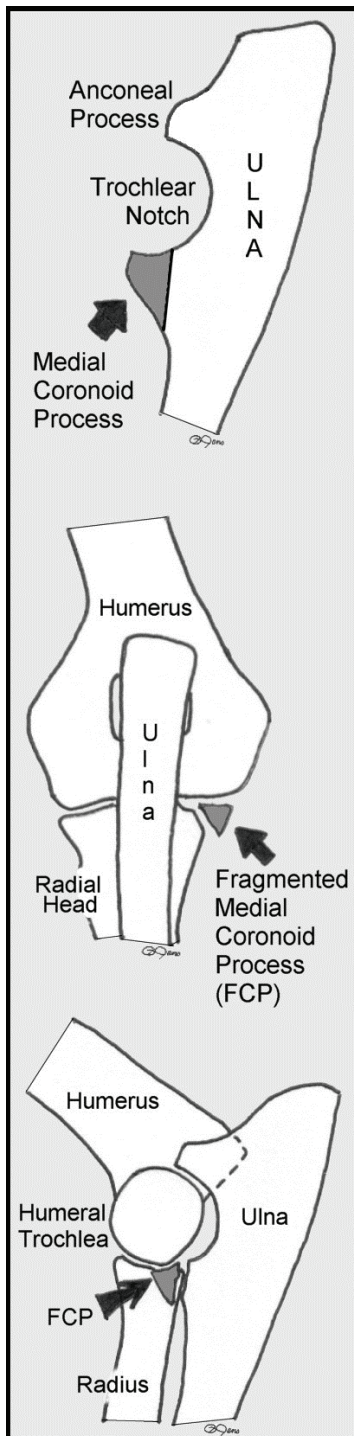


Fragmented Medial Coronoid Process



What is Fragmented Medial Coronoid Process (FMCP)?

A fragmented medial coronoid process (FMCP) is a developmental abnormality in which a piece of bone (the medial coronoid process of the ulna) is either malformed or has separated from the ulna and is floating free in the elbow joint. This typically results from a poor fit between the major components that makes up the elbow joint (ulna trochlear notch, humeral trochlea, and radial head). As a result, the cartilage of the elbow is irritated leading to the development of inflammation, pain, and stiffness eventually resulting in arthritis. More degenerative changes in the cartilage will occur over months to years with continued abnormal fit between joint components and continued irritation by a free fragment. This condition is commonly seen in large breed dogs (Bernese Mountain Dogs, Labrador Retrievers, and Golden Retrievers), although it can happen in any breed, and very often both elbows are affected. The first signs of forelimb lameness tend to occur in puppies that are five to seven months of age. The lameness is usually more severe after periods of heavy activity or periods of prolonged rest.

Diagnosis

During physical exam the most common findings are forelimb lameness, elbow swelling, and pain on manipulation of the elbows. X-rays often show arthritic changes and in some cases the 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 if already present. Advanced imaging such as CT, MRI, or arthroscopy can also aid in the diagnosis of FMCP.

Treatment

Surgical intervention is recommended early in the disease process to decrease the progression of osteoarthritis and increases patients' long-term quality of life. The procedure consists of open surgical and/or arthroscopic examination of the joint followed by removal of the fragmented coronoid process and removal of damaged cartilage. A padded bandage is applied to the operated limb after surgery to minimize swelling and discomfort. Controlled activity is required for 4-6 weeks post-op. Medical management of FMCP consists of anti-inflammatory medications, controlled activity, and physical therapy including weight management. Long-term prognosis is dependent on the amount of elbow arthritis prior to surgery and the degree of poor joint component. If the condition is corrected early, the prognosis is generally good. If surgery is not performed until after significant arthritic changes have occurred, the prognosis is poorer. Even when surgically corrected early, dogs will develop some degree of osteoarthritis. These dogs may require anti-inflammatory medications and physical therapy later in life. Untreated osteoarthritis will progressively worsen and cause a decreased joint range of motion and increased lameness over time.