



ELBOW DYSPLASIA - CANINE

What is Elbow Dysplasia?

Elbow dysplasia is a general term that describes a series of four developmental abnormalities that lead to malformation and degeneration of the elbow joint. Elbow dysplasia includes:

- (1) ununited anconeal process (UAP); (2) osteochondritis dissecans (OCD); (3) fragmented medial coronoid process (FMCP); and (4) incongruity.

One or more of these developmental anomalies may occur alone or in combination within one or both elbows of an affected animal. Bilateral disease is common (50%). Elbow dysplasia is an inherited disease and the heritability is high. It is the most common cause for elbow pain and lameness, and is one of the most common causes for forelimb lameness in large-breed dogs.

Can Any Dog Get Elbow Dysplasia?

Any large dog could develop elbow dysplasia, but breed predilection includes Labrador retrievers, Rottweilers, golden retrievers, German shepherds, Bernese mountain dogs, chow, bearded collie, and Newfoundlands. The age of onset of clinical signs is typically 4-10 months, with diagnosis generally between 4-18 months of age. However, signs related to degenerative joint disease (DJD) can occur at any age.

What Are Its Symptoms?

Not all animals show signs at an early age; older animals often seem to have an acute episode of elbow lameness due to advanced DJD changes. Typically signs are evident at 8-10 months of age because of forelimb lameness having progressed from a stiffness that initially was present only after rest to an intermittent or persistent lameness that is worsened by exercise.

Physical examination findings may include: Pain elicited on elbow hyperflexion/extension; Pain elicited while holding the elbow and carpus at 90° and then rotating the foreleg; Affected limb has a tendency to be held with elbow out and foot turned inward; Joint swelling; Grating with advanced DJD; Diminished range of motion.

How is It Diagnosed?

The history and physical examination make a diagnosis of elbow dysplasia suspect. Radiographs (x-rays) are helpful in some forms but may require multiple angles. A joint tap with analysis of synovial fluid is useful to confirm involvement of joint. Arthroscopy can be used to diagnose UAP, FMCP, and OCD.

Can It Be Treated?

Surgery is recommended for UAP, OCD, and FMCP. Surgery for incongruity is controversial; the type of incongruity dictates the method of treatment. Severity of DJD and age of animal influence surgical outcome. Yearly examinations are recommended to evaluate progression. **Medications:** Analgesic and nonsteroidal anti-inflammatory drugs (NSAIDs like Rimadyl or Etogesic) can be used to symptomatically treat associated DJD. There are no drugs that promote healing of the bone or cartilage fragments. Cartilage protective drugs such as glucosamines may be of benefit in patients with limited cartilage damage and degeneration. They may also help alleviate pain and inflammation.

Prevention

Elbow dysplasia is best prevented by not breeding affected dogs. Radiographs can help identify abnormal dogs but may not identify all dogs carrying this genetic disease. Dam/sire breedings that result in dysplastic offspring should not be repeated.

Pregnancy

Dogs with elbow dysplasia should not be bred. If a dysplastic bitch becomes pregnant, the added weight may make clinical signs become apparent.

Activity

- Exercise should be limited to the individual tolerance of the patient.
- Swimming is recommended to maintain joint mobility while minimizing weight bearing.
- Physiotherapy (passive joint motion) will reduce joint stiffness and help maintain muscle integrity.
- **DIET:** Weight control is important to reduce the load applied to the painful joint and minimize weight gain associated with reduced exercise.

Expected Course & Prognosis

The prognosis is good to fair for all forms of elbow dysplasia. Joint degeneration usually progresses, though most dogs can lead normal lives with proper medical and/or surgical management.

Thank you for this opportunity to serve you.