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Joint Luxations

(Dislocated Joints)

Basics

OVERVIEW

- "Luxation" is the medical term for dislocation; it refers to the complete disruption of a joint when the supporting structures (such as ligaments) around the joint are damaged or missing; "subluxation" refers to a partial dislocation or disruption of a joint
- "Laxity" describes the degree of abnormal looseness in the motion of a joint; the greater the looseness, the greater is the likelihood of joint injury, including sprains and partial or complete dislocations

GENETICS

- "Hyperlaxity syndrome" is an inherited disorder in people, in which multiple joints are very loose; puppies may show temporary extreme looseness (hyperlaxity) of the joints, when confined for long periods of time
- Hip dysplasia is a form of inherited looseness (laxity) of the hip joint; development of hip dysplasia is determined by interaction of genetic and environmental factors
- Shoulder dislocation or luxation is an inherited susceptibility in small breed dogs, like the miniature poodle
- Instability of the femur and kneecap (condition known as "femoropatellar instability") leading to dislocation of the kneecap to the inside of the rear leg (known as "medial patellar luxation") is a common inherited disease in small-breed dogs
- "Ehlers-Danlos syndrome" is a group of inherited connective-tissue disorders, in which the skin is very elastic and the joints are highly moveable and loose

SIGNALMENT/DESCRIPTION OF PET

Species

- Dogs
- Cats

Breed Predilections

- Varies with the joint affected
- Hip—large-breed dogs show clinical signs of hip dysplasia more frequently than smaller breed dogs, but breeds of all sizes can have bone changes characteristic of hip dysplasia on x-rays (radiographs); cats are affected by hip dysplasia, but it is much less common than in dogs
- Congenital (present at birth) shoulder dislocation (luxation) occurs most commonly in miniature breeds, such as the poodle
- Dislocation of the kneecap to the inside of the rear leg (medial patellar luxation)—small-breed dogs

Mean Age and Range

- Traumatic—any age
- Congenital (present at birth) joint laxity or dislocation (luxation) may be seen in the juvenile dog, with related secondary inflammation of the joint (known as "arthritis" or "degenerative joint disease") showing up later in life

SIGNS/OBSERVED CHANGES IN THE PET

- Varies with the joint affected
- Abnormal anatomic or structural position of one bone in relation to the adjoining bone
- Swelling, pain, and non-use of the limb usually are seen with sudden (acute) dislocation (luxation); partial weight-bearing may occur with partial dislocation (subluxation) or long-term (chronic) dislocation (luxation)
- Traumatic dislocations (luxations) may occur at any joint
- Spinal dislocations (luxations) occur as a result of trauma, with associated injury to the spinal cord
- Stifle or knee—cranial cruciate ligament rupture (known as a "ruptured cruciate") leads to instability and partial dislocation (subluxation) of the stifle; pet may limp or may carry the affected rear leg

CAUSES

- Trauma—displacement of normal joint tissues beyond their elastic limit
- Minimal stress applied to abnormally unstable joints in dogs having joint problems with congenital (present at birth) causes

RISK FACTOR

- Abnormal conformation, causing increased stresses on the joint
- Fatigue, causing muscle weakness and incoordination
- Nervous-system abnormalities
- Access to moving vehicles

Treatment

HEALTH CARE

- Rest, reduce mobility, reduce swelling, control pain
- Stabilize the joint (may be able to restore the joint alignment under anesthesia ["closed reduction"] or may require surgical correction ["open reduction"] under anesthesia) or salvage the limb by removing the source of pain
- Immobilize the joint with a bandage and/or splint, if the affected joint is at the elbow or lower in the front leg or at the stifle (knee) or lower in the rear leg
- Cold compresses for 5–10 minutes, 4 or 5 times a day initially to reduce inflammation

ACTIVITY

- Cage rest, until joint stabilization; then slow return to function to encourage healing and strengthening of muscles and other soft tissues, which support the leg

DIET

- Normal

SURGERY

- Closed reduction under anesthesia may be successful if the support structures are intact and no anatomic aberrations are present; "closed reduction" is the restoration of the joint alignment without surgically entering the joint—the veterinarian will manipulate the bones in such a manner as to return them to their normal positions within the joint
- Failing closed reduction, an "open" surgical approach or "open reduction" may be used; in this case, the veterinarian manipulates the bones while observing the bones and the joint during surgery; the joint is reduced or restored—after reduction, some form of surgical stabilization should be applied to reduce the possibility of the dislocation recurring; after surgical closure, an external support sling often is used to limit movement until the tissues around the joint have healed

- The incidence of the dislocation recurring (reluxation) is high, especially in the case of dislocations (luxations) of congenital (present at birth) cause
- Salvage procedures include prosthetic joint replacement (such as a total hip replacement); surgical removal of bone-to-bone contact points (such as surgical removal of the “ball” of the “ball and socket” hip joint [known as a “femoral head and neck ostectomy”]); fusing the joint (known as “arthrodesis”); and amputation

Medications

Medications presented in this section are intended to provide general information about possible treatment. The treatment for a particular condition may evolve as medical advances are made; therefore, the medications should not be considered as all inclusive

- Nonsteroidal anti-inflammatory drugs (NSAIDs) to decrease pain and inflammation in the joint; examples include carprofen, deracoxib, firocoxib, and meloxicam
- Pain relievers (known as “analgesics”) to decrease pain, such as tramadol

Follow-Up Care

PATIENT MONITORING

- Always take an x-ray (radiograph) after restoration (reduction) of the joint
- Take follow-up x-rays (radiographs) when the splint/sling is removed (typically 2–4 weeks after reduction of the joint)

PREVENTIONS AND AVOIDANCE

- Keep pet in fenced-in yards
- Keep the splint/sling in place until healing has occurred, as directed by your pet's veterinarian

POSSIBLE COMPLICATIONS

- Recurrence of the dislocation (luxation) or partial dislocation (subluxation)
- Infection after surgery
- Failure of prosthetic device for joint replacement
- Inflammation of the joint (arthritis)
- Progressive degenerative joint disease; “degenerative joint disease” or DJD is the progressive and permanent deterioration of joint cartilage

EXPECTED COURSE AND PROGNOSIS

- Return of function is expected, unless a complication occurs
- High incidence of recurrence of the dislocation (luxation) or partial dislocation (subluxation) makes the prognosis guarded

Key Points

- Abnormal anatomic or structural position of one bone in relation to the adjoining bone in a joint
- Swelling, pain, and non-use of the limb usually are seen with sudden (acute) dislocation (luxation); partial weight-bearing may occur with partial dislocation (subluxation) or long-term (chronic) dislocation (luxation)
- High incidence of recurrence of the dislocation (luxation) or partial dislocation (subluxation) makes the prognosis guarded
- Activity and body weight gains increase the likelihood of developing degenerative joint changes (arthritis) in the long term

Notes

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