

LEGG-CALVÉ-PERTHES DISEASE

(DEGENERATION OF THE “BALL” PORTION OF THE HIP JOINT)

BASICS

OVERVIEW

- Spontaneous degeneration of the femoral head and neck, leading to collapse of the hip joint (known as the “coxofemoral joint”) and osteoarthritis (form of joint inflammation [arthritis] characterized by chronic deterioration or degeneration of the joint cartilage)
- The hip joint is composed of the “ball” (known as the “femoral head”) and the “socket” (known as the “acetabulum”); the “ball” sits on the “neck,” which is attached to the shaft of the femur, the long bone of the thigh

GENETICS

- Manchester terriers—inheritance pattern involving many factors, with a high degree of heritability
- Hereditary susceptibility likely

SIGNALMENT/DESCRIPTION of ANIMAL

Species

- Dogs

Breed Predispositions

- Common among miniature-, toy-, and small-breed dogs
- Toy breeds and terriers—most susceptible
- Manchester terriers, miniature pinschers, toy poodles, Lakeland terriers, West Highland white terriers, and Cairn terriers—higher than expected incidence of disease as compared to other dog breeds

Mean Age and Range

- Most patients are 5 to 8 months of age
- Range—3 to 13 months of age

SIGNS/OBSERVED CHANGES in the ANIMAL

- Usually only one rear leg is involved; only 12% to 16% of cases are affected in both rear legs
- Lameness—usually gradual onset over 2 to 3 months; weightbearing; occasionally leg is carried (non-weightbearing)
- Pain on manipulation of the hip—most common
- Grating (known as “crepitation”) of the joint—inconsistent
- Decrease in size (known as “atrophy”) of the thigh muscles—nearly always noted

CAUSES

- Unknown
- Compression of the blood vessels serving the “ball” (femoral head) of the hip joint, with subsequent lack of blood flow, has been suggested as a cause, leading to the degeneration of the femoral head and neck and collapse of the hip joint

RISK FACTORS

- Miniature-, toy-, and small-breed dogs—increased risk
- Trauma to the hip region

TREATMENT

HEALTH CARE

- Rest and pain relievers (analgesics)—reportedly successful in alleviating lameness in a minority of patients
- Ehmer sling—successful in one patient; maintained for 10 weeks
- Subtle signs of onset often prevents early recognition and possibility of successful conservative treatment
- Surgical removal of the femoral head and neck (known as “femoral head and neck excision”) with early and vigorous exercise after surgery—treatment of choice

Postsurgery

- Physical therapy—extremely important for rehabilitating the affected limb
- Pain relievers (analgesics), anti-inflammatory drugs, and cold packing—for 3 to 5 days following surgery; important
- Range-of-motion exercises—extension and flexion; initiated immediately
- Small lead weights—attached as ankle bracelets above the hock joint; encourage early use of the treated limb

ACTIVITY

- Conservative therapy—restricted activity recommended

- Postsurgery—early activity encouraged to improve leg use

DIET

- Avoid obesity

SURGERY

- Surgical removal of the femoral head and neck (femoral head and neck excision)

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)—preoperative or postoperatively; minimize joint pain; reduce synovitis; NSAIDs include such drugs as carprofen, etodolac, meloxicam, deracoxib, firocoxib, buffered or enteric-coated aspirin—drugs should be administered only under the direction of your pet’s veterinarian
- Drugs intended to slow the progression of arthritic changes and protect joint cartilage (known as “chondroprotective drugs:” such as polysulfated glycosaminoglycans, glucosamine, and chondroitin sulfate)—little help in advanced disease; no evidence to suggest that these drugs prevent or reverse the disease process

FOLLOW-UP CARE

PATIENT MONITORING

- Conservative therapy—re-evaluate (physical examination, X-rays) to determine if surgery is needed
- Postsurgical progress checks—2-week intervals; necessary to ensure compliance with exercise recommendations

PREVENTIONS AND AVOIDANCE

- Discourage breeding of affected animals
- Do not repeat breedings that resulted in affected offspring

POSSIBLE COMPLICATIONS

- Limiting postoperative exercise may result in less than optimal limb function

EXPECTED COURSE AND PROGNOSIS

- Conservative therapy—reported to alleviate lameness after 2 to 3 months in about 25% of patients
- Surgical removal of the femoral head and neck (femoral head and neck excision)—good to excellent prognosis for full recovery (84%–100% success rate)

KEY POINTS

- Owners of Manchester terriers need to be aware of the genetic basis of the disease; discourage breeding affected dogs
- Recovery after surgical removal of the femoral head and neck (femoral head and neck excision) may take 3 to 6 months

