



Erosive, Immune-Mediated Polyarthriti

Basics

OVERVIEW

- “Erosive” refers to “wearing away” or “eating into”; “immune-mediated” refers to a condition caused by the response of the immune system; “polyarthriti” is the medical term for inflammation of several joints
- “Erosive, immune-mediated polyarthriti” is an immune-mediated inflammatory disease of joints that results in wearing away (that is, erosion) of joint cartilage in several joints
- Destruction of bone is evident on x-rays (radiographs) of affected joints

GENETICS

- Not known to be hereditary

SIGNALMENT/DESCRIPTION OF PET

Species

- Dogs—idiopathic erosive polyarthriti (erosive inflammation of several joints of unknown cause); erosive polyarthriti of greyhounds
- Cats—feline chronic progressive polyarthriti (long-term, progressive inflammation of several joints, characterized by decreased bone density and formation of new bone in the tissue covering the bone [known as the “periosteum”], with collapse of the spaces between bones in the joint)

Breed Predispositions

- Small- or toy-breed dogs—more susceptible to idiopathic erosive polyarthriti (erosive inflammation of the joint of unknown cause)
- Greyhounds—only breed known to be susceptible to erosive polyarthriti of greyhounds

Mean Age and Range

- Idiopathic erosive polyarthriti (erosive inflammation of the joint of unknown cause) in dogs—young to middle-aged (8 months–8 years of age)
- Erosive polyarthriti of greyhounds—young greyhounds (3–30 months of age) are more susceptible than older greyhounds
- Feline chronic progressive polyarthriti (long-term, progressive inflammation of several joints, characterized by decreased bone density and formation of new bone in the tissue covering the bone [periosteum], with collapse of the spaces between bones in the joint)—onset at 1.5–4.5 years of age

Predominant Sex

- Feline chronic progressive polyarthritis (long-term, progressive inflammation of several joints, characterized by decreased bone density and formation of new bone in the tissue covering the bone [periosteum], with collapse of the spaces between bones in the joint)—reported to affect only male cats

SIGNS/OBSERVED CHANGES IN THE PET

- Dogs and cats—initial symmetric stiffness, especially after rest, or intermittent shifting-leg lameness and swelling of affected joints; “shifting-leg” lameness is characterized by lameness in one leg, then that leg appears to be normal and another leg is involved
- Cats—may have a more subtle onset of signs than seen in dogs
- Usually no history of trauma
- May also see vomiting, diarrhea, lack of appetite (known as “anorexia”), fever, depression, and enlarged lymph nodes (known as “lymphadenopathy”)
- Often cyclic—may appear to respond to antibiotic therapy, but may be undergoing spontaneous remission
- Stiffness of gait; lameness; decreased range of motion; grating detected with joint movement (known as “crepitus”); and joint swelling and pain in one or more joints
- Joint instability, partial dislocation (known as a “subluxation”), or dislocation (known as a “luxation”)—depend on duration of disease
- Lameness—mild weight-bearing to more severe non-weight-bearing

CAUSES

- Unknown cause (so-called “idiopathic disease”)
- Immune-mediated mechanism likely
- *Mycoplasma spumans* (possible cause of erosive polyarthritis of greyhounds)—cultured from one affected greyhound; not isolated in other affected pets
- Feline leukemia virus (FeLV) and feline syncytium-forming virus (FeSFV)—linked to feline chronic progressive polyarthritis (long-term, progressive inflammation of several joints, characterized by decreased bone density and formation of new bone in the tissue covering the bone [periosteum], with collapse of the spaces between bones in the joint)

Treatment

HEALTH CARE

- Usually outpatient
- Physical therapy—range-of-motion exercises, massage, and swimming; may be indicated for severe disease
- Bandages and/or splints—to prevent further breakdown of the joint; may be indicated for severe disease when pet has compromised ability to walk

ACTIVITY

- Limited to minimize aggravation of clinical signs

DIET

- Weight reduction—to decrease stress placed on affected joints

SURGERY

- Healing rates—may be long and protracted; range of recovery levels
- Surgery—generally not recommended as a good treatment option
- Total hip replacement or surgical removal of the femoral head (the “ball”) of the hip joint (procedure known as “femoral head and neck ostectomy” or FHO) may be considered
- Joint fusion (known as “arthrodesis”)

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

IDIOPATHIC EROSIIVE POLYARTHRTIS

- Nonsteroidal anti-inflammatory drugs (NSAIDs) in dogs—unrewarding response
- Steroids (such as prednisone)
- Combination of steroids and chemotherapy drugs (such as cyclophosphamide, azathioprine, 6-mercaptopurine, methotrexate, or leflunomide)
- Remission usually induced by combination chemotherapy within 2–16 weeks; determined by resolution of clinical signs and confirmation of normal joint-fluid analysis
- Discontinue chemotherapy drugs 1–3 months after remission is achieved
- Maintaining remission—alternate-day steroid (prednisone) treatment generally is successful
- Gold-salt therapy (known as “chrysotherapy”), using aurothiomalate—may alleviate signs

EROSIVE POLYARTHRTIS OF GREYHOUNDS

- Treatment is unrewarding
- Antibiotics, nonsteroidal anti-inflammatory drugs, steroids, chemotherapy drugs, and medications intended to slow the progression of arthritic changes and protect joint cartilage (known as “chondroprotective drugs”), such as polysulfated glycosaminoglycans—fail to induce remission

FELINE CHRONIC PROGRESSIVE POLYARTHRTIS

- Treatment may help slow progression
- Combination of steroids (prednisone) and chemotherapy drug (cyclophosphamide)—typically used

Follow-Up Care

PATIENT MONITORING

- Treatment often is frustrating and requires frequent reevaluation
- Clinical deterioration—requires a change in drug selection or dosage or change in treatment
- Important to try to induce remission; allowing the disease to smolder uncontrolled will increase risk of secondary degenerative joint disease (progressive and permanent deterioration of joint cartilage)

EXPECTED COURSE AND PROGNOSIS

- Progression is likely
- Long-term prognosis is poor
- Cure is not expected; remission is the goal of treatment

Key Points

- Treatment often is frustrating and requires frequent reevaluation
- Poor prognosis for cure and complete resolution
- Progression is likely
- Cure is not expected; remission is the goal of treatment

Notes

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