ACVIM Fact Sheet: Immune mediated polyarthritis (IMPA)

Overview
Immune mediated polyarthritis (IMPA) is a disease in which the immune system mounts an inflammatory response within the joints, causing pain, swelling and difficulty walking. In IMPA, the immune system is inappropriately activated to send white blood cells to the joints. The white blood cells release chemicals and enzymes into the fluid that bathes the joints, disrupting the protective function of this fluid. A diagnosis of IMPA is made after the veterinarian is certain that there is not an underlying infection or cancer that may have triggered swelling in the joints. Because the white blood cells are attacking the joints inappropriately, IMPA is sometimes called an autoimmune disease. IMPA can occur independently or in combination with more severe immune mediated disease in which other body systems are affected. IMPA is seen more commonly in dogs than cats, but can occur in both species. Rheumatoid arthritis is a form of IMPA in people.

Signs & Symptoms
IMPA causes sore, swollen joints; patients are often lethargic and reluctant to move. Frequently the patient will walk only when forced, cry with movement or may seem to walk as if stepping on a hot surface. When the joints in the spine are affected, patients may cry when the neck is touched or their collar is pulled. In the early phase of the disease, the patient may only have a low-grade fever or poor appetite and the joint swelling may be subtle.

Diagnosis
When a veterinarian detects joint inflammation and fever, tests will be done to look for a systemic infection or cancer that may have initiated an immune response. This may include some blood tests, radiographs or other imaging studies. Commonly, a joint tap is performed, in which fluid is withdrawn from the joint with a small needle for microscopic evaluation and culture. Only when other potential inciting causes of joint inflammation are eliminated is the disease called immune mediated polyarthritis.

Treatment & Aftercare
Patients with IMPA are treated with medications that calm the immune response. These medications may include steroid medications such as prednisone, sometimes in combination with other immune modulating medications. Because these medications suppress the immune system, careful monitoring is necessary during therapy and the medications should be handled with care. Dosage adjustments are made often, especially early in the disease process, depending on the patient’s response. Medication side effects such as excessive thirst and urination generally abate as medication dosages are reduced. Close communication and follow up with a veterinarian is critical so the appropriate medication and dosage is used. IMPA can relapse if medications are tapered too quickly.
Some patients require lifelong medications, often at very low dosages; other patients are able to come off medications altogether.

**Prognosis**
Most patients with IMPA survive and maintain a good quality of life for the long term. Patients that are diagnosed early rarely have irreversible damage to their joints. Although some patients require lifelong medication to ward off a relapse of joint inflammation, medication side effects are generally tolerable and do not affect longevity. IMPA, like other immune mediated diseases, requires diligent follow up and communication with a veterinarian.

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