Polyarthritis

What are the components and function of joints?

Joints allow range of motion and movement between bones. Joints are covered in cartilage to cushion the bones and filled with fluid to lubricate the joint itself. In a normal joint, there should be no discomfort with movement.

What is polyarthritis?

Polyarthritis is inflammation in multiple joints at the same time. It is much more severe than the age-related arthritis commonly diagnosed in dogs and cats.

What causes polyarthritis?

Polyarthritis is most commonly associated with an immune-mediated attack on the joints. There are multiple other potential causes including systemic inflammatory reactions from occult or tick-borne infections, systemic lupus erythematosis (SLE, a systemic immune system problem), tumors, viral disease, intestinal diseases, and drug reactions. Rheumatoid or erosive arthritis is a less common and more severe form of immune-mediated polyarthritis.

What clinical signs does polyarthritis cause?

Polyarthritis causes a number of clinical signs. The most prevalent sign is lameness in multiple limbs. The lameness may shift from limb to limb or affect many limbs at once.

Other common signs include:
- Fever
- Pain
- Anorexia
- Weight Loss
- Swollen joints
- Lethargy

What laboratory changes does polyarthritis cause?

Polyarthritis often causes no specific laboratory changes other than an elevated white cell count. Other lab changes may be seen with specific underlying conditions.

What testing is recommended for polyarthritis patients?

In evaluating patients with polyarthritis, the two primary considerations are confirming the diagnosis and evaluating for underlying disease. Collection of joint fluid under sedation or anesthesia is the only way to confirm the diagnosis. This fluid is also cultured to rule out infection. Other tests are performed to evaluate for underlying systemic disease.
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Most patients evaluated for polyarthritis will need the following tests:

- Chemistry profile
- ANA
- Complete Blood Count (CBC)
- Urinalysis
- Chest x-rays
- Infectious disease titers
- Abdominal Ultrasound

- Abdominal ultrasound is a non-invasive test that uses sound waves to create images of internal organs and structures
- Chest x-rays are performed to rule out occult infection or tumors
- ANA (anti-nuclear antibody) is a blood test for systemic lupus
- Cardiac ultrasound (echocardiography) to evaluate for endocarditis (infection on the heart valves)

What treatment options are available for polyarthritis patients?

Immune-mediated polyarthritis is typically very responsive to medical therapy with steroids or other immunosuppressive medications. In many cases the medications can be weaned over time. SLE or erosive arthritis often requires more aggressive or long term therapy. Other specific therapies may be required if underlying diseases are identified.

What sort of long-term monitoring is recommended for polyarthritis patients?

Patients with polyarthritis that respond well to medical therapy often only require periodical physical examinations prior to drug tapering. As the drugs are slowly weaned, the patients will be monitored for relapse of disease. In certain instances, recheck joint fluid collection is required. Finally, depending on the medical protocol selected, labwork may be followed to evaluate for medication side-effects.

What is the prognosis with polyarthritis?

The prognosis with polyarthritis is generally good unless a significant underlying condition is diagnosed. The majority of patients can eventually be weaned from immunosuppressive medications and do not relapse. If the signs relapse or do not respond initially, more aggressive or life-long therapy may be required. Polyarthritis is rarely a life-threatening condition and the quality of life is generally excellent once treatment is started.