Panosteitis (Pano)

What is it?

Panosteitis is a bone disease of puppies and young dogs characterized by bone proliferation and remodeling. It is a painful disease that can last as long as 18 months (often lasts 2-5 months). Dogs with panosteitis present with acute lameness that comes and goes and will change from leg to leg. They can present with fevers, tonsillitis, or an elevated white blood cell count. Panosteitis is a common problem of large breed dogs and the cause is unknown. Treatment is symptomatic but the outcome is usually very good.



What causes it?

The cause of Panosteitis is unknown. Some theories include infection, viral disease, genetics, and nutrition (involving protein and fat in a dog's diet).

Risk Factors

Panosteitis is a disease of large breeds, mostly males, that presents between 6-18 months of age. Some breeds, like German Shepards, can present later on in life with panosteitis. Breeds most likely affected by the disease include: German Shepards, Great Danes, Doberman Pinschers, Golden Retrievers, Labrador Retrievers, Rottweilers, and Basset Hounds.

Testing & Treatment

How is it diagnosed?

Panosteitis is diagnosed based on dog symptoms (discussed above) and radiographs. Radiographs should be taken of all affected limbs. Radiographic findings such as: early disease shows a subtle increase in bone density in the center part of affected bones, middle disease reveals bones that are patchy or mottled with the outer surface of the bone looks roughened, and late disease shows the bone is slightly modelled but it is returning to a normal appearance.

How is it treated?

Although there is no specific treatment for the disease, drugs such as Rimadyl are used to control the pain. The disease is self-limiting and after it runs its course, there are very few long-term side effects or need for further treatments.

Prevention:

Currently there is no prevention for panosteitis. Since there is a genetic link, breeding animals should be screened to ensure that they are not carriers of the disease. There are large breed puppy foods available, however, there is no current evidence that confirms that these diets lower the incidence of the disease.