

Hypertrophic Osteodystrophy in Dogs

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BASIC INFORMATION

Description

Hypertrophic osteodystrophy (HOD) is a disease of the ends of the bones (metaphyses) of growing dogs that occurs between the ages of 2 and 8 months. It affects large-breed dogs. The disease is more common in males. It is also known as *canine scurvy*, *skeletal scurvy*, *Mueller-Barlow disease*, *osteodystrophy types 1 and 2*, *metaphyseal dysplasia*, and *metaphyseal osteopathy*. Weimeraners may be more susceptible to this disease than other breeds.

Causes

The cause is unknown. Bacterial and viral infections, insufficient vitamin C, and excessive dietary calcium have been suggested as causes, but none are proven.



Clinical Signs

Lameness, ranging from mild to severe, is usually observed in all four legs. Palpation of the ends of the bones reveals warmth, swelling, and pain. The changes may be most obvious at the end of the radius (large bone in the forearm). The initial (acute) phase of the disease may last 7-10 days. Signs include diarrhea, fever, depression, poor appetite, and weight loss. The dog may be in such pain that it is reluctant or unable to rise or walk.



Diagnostic Tests

The age and breed of dog, as well as finding pain around the ends of the bones, suggest HOD as the cause of the lameness. X-rays

are usually diagnostic when they show a loss of bone adjacent to the normal growth plate (physis). Laboratory and other tests may be recommended to rule out other causes of diarrhea, fever, and weight loss.

TREATMENT AND FOLLOW-UP



Treatment Options

Supportive care, consisting of rest, good nursing care, and administration of nonsteroidal anti-inflammatory drugs designed for use in dogs, usually results in a successful outcome. Occasionally, the pain may be severe enough to warrant more potent pain-relief medications, such as opioid drugs or tramadol.



Follow-up Care

Most dogs recover within 7-10 days, but relapses are possible. Notify your veterinarian if the signs do not resolve within this time period or if they recur. In rare instances, HOD can result in disturbances of bone growth, with subsequent deformity and angling of the bones. If the deformity is severe, corrective surgery may be required.

Prognosis

Prognosis is generally good, because the disease usually resolves with symptomatic treatment.