



VET CHAT



Understanding Histiocytic Sarcoma in Dogs

Histiocytic sarcoma (HS) is an uncommon but aggressive cancer of dogs.

Histiocytes are a type of white blood cell that reside within the tissues of almost every organ in the body and are an important part of the immune system. They help get rid of invading pathogens and stimulate other cells of the immune system.

Histiocytic sarcomas develop when these specialised white blood cells begin dividing uncontrollably. Because white blood cells are found in many different tissues, HS can arise almost anywhere and spread quickly.

Histiocytic sarcoma was first described in Bernese Mountain Dogs in the late 1970s, but it has now been noted in other breeds including:

- Flat Coated Retrievers
- Miniature Schnauzers
- Rottweilers
- Labrador Retrievers
- Pembroke Welsh Corgis
- Golden Retrievers

Histiocytic sarcoma is more common in middle aged and older dogs, although there are reports of the disease in dogs as young as 3 years old. Males and females are affected equally.

Clinical signs, diagnosis & treatment

Unfortunately, the most common signs of HS are similar to many other diseases and include:

- Lethargy
- Poor appetite
- Swelling and lameness (in cases of bone or joint involvement)
- Coughing
- Breathing difficulty
- Vomiting
- Diarrhoea

Diagnosis usually is made based on a combination of clinical signs, bloodwork results, and biopsy or a fine needle aspirate of abnormal tissue. Additional tests, such as ultrasound or X-ray, often are used as adjunctive diagnostic tests and as a means of assessing the extent of disease.

Histiocytic sarcoma can take many forms, and clinical signs and prognosis vary with different subtypes. Three recognised subtypes are: localised, disseminated and hemophagocytic:

- Localised HS is confined to one organ and usually is treated with surgery followed by chemotherapy. In many cases, patients can live more than one year (and occasionally longer), depending on the success of the surgery.
- Disseminated HS affects many different organs. Chemotherapy can be used to slow progression of disease, but prognosis is poor with most patients only living a few months.
- Hemophagocytic HS is the most aggressive subtype. No effective treatments exist and survival times are only one to two months.

There is evidence a genetic component may play a role in HS. The only other risk factors identified to date are a history of orthopedic disease and inflammation when HS is localised to a joint.





Histiocytic Sarcoma and the Golden Retriever Lifetime Study

The Golden Retriever Lifetime Study is carefully tracking all cancers reported in the Morris Animal Foundation's Study participants, including histiocytic sarcoma. In fact, they've added HS to the primary endpoint cancers in the Study (osteosarcoma, hemangiosarcoma, lymphoma and mast cell tumor), due to a higher level of occurrence than originally expected at the outset of the Study.

As of June 2021, Morris Animal Foundation recorded 20 cases of histiocytic sarcoma in their cohort of dogs. The Study team is monitoring all of their cancer cases, including histiocytic sarcoma, as a first step toward looking for risk factors associated with the development of this terrible cancer.

The Morris Animal Foundation are advancing diagnostics, treatments and cures to improve and to give hope to dogs and their people affected by this aggressive, and poorly understood, cancer.

The Golden Retriever Lifetime Study is one of the largest, most comprehensive prospective canine health studies in the United States. The Study's purpose is to identify the nutritional, environmental, lifestyle and genetic risk factors for cancer and other diseases in dogs. Each year, with the help of veterinarians and dog owners, the Foundation collects health, environmental and behavioral data on 3,000+ enrolled Golden Retrievers.

The Study will help identify nutritional, genetic and environmental risk factors for cancer and other important diseases in dogs. Results will provide comprehensive data on diseases and other health challenges, including cancer. Findings will be used as a launching point for multiple health studies in dogs.

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