



ACVIM

Oncology
Fact Sheet

ACVIM Fact Sheet: Hemangiosarcoma

Overview

Hemangiosarcoma (HSA) is a type of cancer that develops from the cells that normally create blood vessels (endothelial cells). The cause of hemangiosarcoma in most cases is unknown. However, we do know that sunlight can cause this cancer on the belly skin, inner thighs, eyelids and eyelid membranes (conjunctiva) of patients with pale/pink skin and thin fur who live in very sunny climates.

Hemangiosarcoma is more common in dogs than any other species and affects mostly middle-aged to older animals. Some breeds such as German Shepherds, Golden Retrievers and Labrador Retrievers are more susceptible than other breeds to develop non-cutaneous HSA.

Signs & Symptoms

In dogs and cats, the most common primary sites of this cancer are spleen, liver, heart and skin. However, it can develop anywhere in the body.

Symptoms of this cancer are variable and dependent on location in the body. In the skin, a red to purple colored superficial bump may be noted; this bump may bruise or bleed. Under the skin, a soft or firm swelling that may feel like a benign fatty tumor may be palpable. Symptoms for tumors that develop internally may be any combination of the following: unexplained weight loss, bulging belly, decreased exercise/stamina, lethargy/sleeping more, decreased appetite, increased panting, pale gums, weakness, cough, and collapse.

Diagnosis

Typically, this cancer is diagnosed based on a biopsy that is reviewed by a veterinary pathology specialist. It is a cancer that is very difficult to diagnose using fine needle aspiration cytology. Abdominal ultrasound, x-rays, CT scan and surgery are all tools that are used to provide information about the extent of the disease in the patient's body. There is not currently a perfect blood screening test for HSA, though one has been developed and investigators are working on refinement of our understanding of how to use such a test.

Treatment & Aftercare

Surgery is typically the ideal first treatment for HSA. For some types of HSA, it may be the only treatment option that is necessary. However, for many types of HSA, further treatment after surgery is often necessary because of potential for spread to other sites in the body (metastasis). Chemotherapy is often recommended following surgery for the following sites: liver, spleen, beneath the skin/in the muscle (subcutaneous/intramuscular) and bone. Chemotherapy is usually recommended as the

primary therapy for HSA of the heart as surgery in this location is very difficult to perform. Radiation therapy is sometimes used if surgery is unable to remove the tumor in its entirety from external surfaces (skin/eyelids, “incomplete margins”).

If hemangiosarcoma is diagnosed in your dog or cat, it is ideal to consult with an experienced veterinary professional such as a Board-certified oncologist. When such an individual recommends a personalized treatment plan, quality-of-life (QoL) is expected to remain optimal because these veterinarians know how to create an ideal plan and gather a team of veterinary specialists who are experienced in managing cancer patients and only have your pet’s best interest in mind. This team might include a surgeon, radiation oncologist, radiologist, internal medicine specialist, etc.

Prognosis

Prognosis depends on the site on the body that is affected and is quite variable:

- Sunlight-induced, superficial, skin hemangiosarcoma are often cured following surgery though other skin sites in the same patient may become affected by new cancer lesions that occur entirely independent of the first location. It is recommended for families with pets diagnosed with sunlight-induced skin cancer of any kind to practice *future* sun avoidance for the affected pet.
- In contrast, it is rare when patients with spleen HSA are cured following surgery to remove the spleen as tumors that arise in that site are usually associated with metastasis (spread of tumor cells from primary site via the blood stream to new locations such as lung). This metastasis occurs even if there is no evidence of secondary tumor sites at the time of surgery. The average survival prognosis for patients with spleen HSA following surgery alone is approximately two months, with only 10% survival at one year. The average survival for dogs with spleen HSA treated with surgery and chemotherapy is improved at six to eight months and patients typically experience an excellent QoL during with treatment.
- The prognosis for other sites of hemangiosarcoma is quite variable. Consultation with a specialist who is board certified by the American College of Veterinary Internal Medicine (such as a veterinary oncologist) can help you better understand your pet’s individual prognosis if he or she is diagnosed with hemangiosarcoma.

The only means of prevention of this disease in the skin and eyelids is to avoid sun exposure in dogs with thin/fair hair and pale/pink skin (white pit bulls, white boxers, whippets, etc.). There is no known preventive method for other types of hemangiosarcoma.

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