



Always consult with a veterinarian that you feel comfortable with before diagnosing or treating any disease on your own. This information is for reference only.

www.furrycritter.com

Hemangiosarcoma

Issue Description

A malignant, rare, rapidly growing, highly invasive variety of cancer. It is a blood-fed sarcoma; that is, blood vessels grow directly into the tumor and it is typically filled with blood. A frequent cause of death is the rupturing of this tumor, causing the victim to rapidly bleed to death.

Other Names

HSA

Types Of Hemangiosarcoma

Hemangiosarcoma can theoretically arise from any tissue where there are blood vessels (which amounts to anywhere in the body) but there are three classical locations which account for most presentations:

Skin and Subcutaneous Forms

The skin form of hemangiosarcoma are the best types to have as they are the most easily removed surgically (and thus have the greatest potential for complete cure).

The skin forms of hemangiosarcoma are classified as either "dermal" and "subcutaneous". The true skin form looks like a rosy red or even black growth on the skin. This form is associated with sun exposure and thus tends to form on non-haired or sparsely haired skin (such as on the abdomen) or on areas with white fur. Dogs with short white haired fur (such as Dalmatians and pit bull terriers) are predisposed to the development of this tumor. Approximately 1/3 of cases will spread internally in the malignant way we usually associate with cancer so it is important to remove such growths promptly.

- The biopsy report will indicate whether or not the growth was completely excised. If the tissue completely surrounding the growth is normal, this indicates that the growth has been removed completely and that it should not grow back.

If one wants to be absolutely positive that no tumor spread has yet occurred, the following non-invasive (but not inexpensive) testing is necessary.

- Chest radiographs – hemangiosarcoma tends to spread to the lungs. Advanced tumor spread can be picked up with this simple test. (Spots of tumor spread must be 3cm in diameter to be large enough to be visible on a radiograph.)
- Ultrasound of the belly – specifically the spleen. Even a small splenic hemangiosarcoma should be detectable with ultrasound.
- Ultrasound of the heart – even a small heart-based hemangiosarcoma should be detectable with ultrasound.

Subcutaneous Or Hypodermal Hemangiosarcoma

The overlying skin is often totally normal on top of a subcutaneous hemangiosarcoma and often the surgeon is surprised to find a dark red blood growth under the skin when the tumor is removed.

Since up to 60% of hypodermal hemangiosarcomas spread internally the above three tests to rule out tumor spread are more important.

- If no sign of tumor spread is found after chest radiographs have been taken and ultrasound of the heart and belly are clear, prognosis is substantially better than if secondary tumor is found; however, additional treatment with chemotherapy is recommended if cure is the goal.
- Surgery alone has been associated with a 172 day (approximately 6 months) median survival time.

Splenic Forms

The spleen is a fairly deep-seated abdominal organ which tends to go unnoticed unless it develops a growth of unusual enlargement. Splenic growths have the unfortunate tendency to break open and bleed profusely regardless of whether they are benign or malignant. While a splenectomy (removal of the spleen certainly ends the prospect of this type of life-threatening sudden bleed, splenic hemangiosarcoma is still a rapidly spreading malignancy.

When a splenic mass is detected, it may not be possible to tell prior to splenectomy whether or not the mass is malignant or not (though certainly basic testing is performed in an attempt to determine this.)

- 25% of dogs with splenic Hemangiosarcoma also have a heart-based Hemangiosarcoma.
- Survival time with surgery alone is 19-65 days for splenic hemangiosarcoma.

Heart Base Forms

Like the splenic hemangiosarcoma, the heart-based hemangiosarcoma tends to exert its life-threatening effects by bleeding.

The heart is enclosed in a sac called the pericardium. When the hemangiosarcoma bleeds, the blood fills up the pericardium until it is so full that the heart inside is under so much pressure that it has no room to fill with the blood it has to pump.

On chest radiographs the heart is spherical. In fact, the actual heart is of normal shape but all that can be seen on the radiograph is the large round heart shadow of the pericardium filled to capacity with blood. Ultrasound is needed to truly see the effusion.

This condition, if allowed to progress, results in an emergency circulating collapse called a "pericardial tamponade" and can only be relieved by tapping the pericardium with a needle and withdrawing the excess fluid.

- 63% of heart-based Hemangiosarcomas have evidence of tumor spread at the time of their discovery.
- Survival time for surgery alone (removing the pericardium and snipping off the heart-based hemangiosarcoma) is approximately 4 months.

Symptoms

Visible bleeding, usually in the form of nosebleeds, and signs associated with blood loss, such as tiring easily, episodes of unexplained weakness, pale color to the mucous membranes of the mouth and eyes, increased respiratory rates, abdominal swelling and depression are the most common presenting signs for patients with hemangiosarcoma. A few dogs just suddenly die with no clinical signs having been noted by their families prior to death.

Diagnosis

HSA is often suspected based on breed, age, clinical signs, history and physical examination. Other tests that may provide further support of this presumptive diagnosis include complete blood count (CBC), serum chemistry profile, abdominocentesis (although the presence of neoplastic cells is infrequent), coagulation profile, three-view thoracic radiographs, abdominal radiographs, abdominal ultrasound, echocardiogram and electrocardiography. These diagnostic tests can also be used to clinically stage the severity of disease.^{15,19} This system uses the size, site and character of the primary tumor, and whether the cancer has spread to the regional lymph nodes or undergone metastasis to distant sites to categorize the disease into one of three clinical stages.¹⁹ However, there is no proven difference in median survival times between different stages of disease, so patients with HSA are not always fully staged.

Treatment

Treatment and prognosis for Hemangiosarcoma vary by location. Cutaneous Hemangiosarcoma is often curable with surgery alone, provided the lesion is small and confined to the dermis. Cutaneous Hemangiosarcoma often occur in areas of glabrous skin on lightly pigmented dogs and arise as a result of sunlight exposure. Lesions that are larger or deeper may be either primary or metastatic lesions and warrant more aggressive treatment. Treatment of splenic, atrial, or subcutaneous Hemangiosarcoma consists of surgical excision of the primary tumor and adjuvant chemotherapy.

Prognosis

The prognosis for patients with splenic HSA is poor despite aggressive surgical, drug, or radiation therapy. Median survival times for splenic HSA treated with surgery alone range from 19 days to 3 months; a one-year post-treatment survival rate for dogs is less than 10%. Chemotherapy either with a single agent doxorubicin protocol or with a combination drug protocol following splenectomy has been reported to increase the median survival time to 140 to 202 days. Addition of immunotherapy (L-MTP) reportedly increased survival to a median of 273 days in one study.

The prognosis for cardiac HSA also is poor despite therapeutic attempts. The reported mean survival times of dogs with cardiac HSA that underwent surgical therapy alone ranged from 3 to 5 months.

Cutaneous HSAs have a better prognosis than all other primary sites of tumor origin. One study of surgically-treated cutaneous HSAs had a median survival time of 780 days. In this same study, HSA that had invaded the subcutaneous tissues and muscle had a median survival time of 172 and 307 days, respectively. Chemotherapy may be warranted with HSA that invades either the subcutaneous tissues or muscle.

The material and information on this website, including any merchandise, information or service provided through this website, is provided "as is" with all faults and without warranty of any kind from the Furry Critter Network, expressed or implied. In no event shall the Furry Critter Network be liable for any direct damages, special, incidental or consequential damages, lost profits, or any indirect damages arising from the use or inability to use this website, even if the Furry Critter Network has been informed of the possibility thereof.