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HEMANGIOSARCOMA

WHAT IS HEMANGIOSARCOMA?

Hemangiosarcoma is an aggressive cancer that arises from blood vessels. Because blood vessels are found throughout the body, the cancer can occur anywhere. Hemangiosarcoma is, however, most commonly found in the spleen, liver, and heart. It can also arise on the skin of dogs. This appears to be a form of cancer induced by exposure to the sun and carries a much better prognosis than the internal form of the disease. Although any breed of dog can develop hemangiosarcoma, certain breeds such as German Shepherds, English Setters, and Golden Retrievers are at higher risk. What triggers the growth of this type of cancer is unknown.

CLINICAL SIGNS

Clinical signs of hemangiosarcoma depend on the location of the tumor. Many dogs with this cancer in an internal organ show signs of intermittent or persistent weakness, or even collapse. This is due to a variety of factors. Growth of the tumor can lead to its rupture, resulting in sudden loss of blood into the affected body cavity. As the spleen is the internal organ most commonly affected by this cancer, its rupture causes the spilling of blood into the abdominal cavity. If only a small amount of blood is lost, the episode of weakness can be transient, as the blood can be reabsorbed into the body. If a large amount of blood is lost, shock develops and the weakness can be so profound as to cause collapse. This is an emergency situation. Distention of the abdomen may also be observed because of the large volume of free blood in the abdominal cavity. If the cancer is on the heart, bleeding can occur into the sac that surrounds the heart, resulting in a compromise of the heart's ability to pump blood effectively. This can also cause shock, weakness, and collapse.

Because the cancer is producing abnormal blood vessels, these vessels tend to be very weak and prone to leaking. It is possible for these blood vessels to rupture, effectively bathing the body cavity with the cancerous cells it contained. The cancer cells can also break off from the abnormal blood vessel and travel through the bloodstream, gaining access to all areas of the body. This results in the rapid distribution of cancer throughout the body. This spread of cancer to distant sites is termed "metastasis". It is this widespread metastasis that makes hemangiosarcoma so effectively aggressive. Often the cancer has metastasized before any clinical signs are evident.

DIAGNOSIS

When hemangiosarcoma is suspected, a number of tests can be performed to diagnose and stage your dog's cancer. Staging allows your veterinarian to educate you further about your dog's disease, allowing you to make informed decisions regarding treatment options.

X-rays of the chest are valuable to evaluate the heart and check for metastasis in the lungs. An ultrasound of the abdomen and/or the heart can identify location of tumor and metastasis. A complete blood count, chemistry profile, and urinalysis can assess your dog's overall health status. A coagulation panel evaluates your dog's ability to clot blood. Other tests may be indicated and recommended depending on individual circumstances.

TREATMENT

Treatment for hemangiosarcoma involves two different modalities. The first is often surgery to remove the primary tumor. If multiple sites of metastases are found during the diagnostic testing, surgery may be of no benefit. Surgery may be followed by chemotherapy.

Fortunately chemotherapy in dogs and cats is very different than in people. The focus for our pets is maintaining quality of life and thus we never want the treatment to be worse than the disease. There are various reasons why chemo is better tolerated in pets, but the most important factor is psychological. Your dog does not know he or she has cancer. Dogs do not know, and are not able to anticipate, that the drugs may make them sick. Human cancer patients suffer from a phenomenon called "anticipatory vomiting", but dogs do not have this problem. Dogs may still experience side effects caused by the chemotherapy, but in the few dogs who do experience side effects (about 5%), the signs are typically mild and transient. We will discuss possible side effects based on the chosen chemotherapy protocol.

PROGNOSIS

Hemangiosarcoma is not curable. Dogs with internal organ involvement who are treated with surgery alone live an average of 2 months. Dogs who do not have identifiable metastasis at the time of surgery and who are treated with chemotherapy live a median of 6-10 months. Median survival means that 50 percent of dogs live less than this time and 50 percent live longer. Some dogs with metastasis may also respond to chemotherapy, providing a prolonged quality of life compared with dogs that are not treated at all. Dogs with hemangiosarcoma located in the subcutaneous tissues (just under the skin) live a median of about 6 months with surgery alone. Surgical removal of the skin form, provided it did not arise as a metastasis from the more aggressive form, provides a disease-free interval of about 780 days. New lesions can continue to form, however, because of previous or continued sun damage and exposure.

New types of treatments are being investigated in the hope of improving the response rate of dogs with this disease. Quality of life is always the main goal and this can often be achieved by working closely with your veterinary team.