

Canine Hemangiosarcoma

by Karen Potter, DVM

Canine Hemangiosarcoma is a very aggressive, high grade soft tissue sarcoma that most commonly affects the spleen and heart. This article comes with a personal side as I lost one of my own GWP's nearly 2 years ago at 7.5 years of age from splenic hemangiosarcoma.

What is Hemangiosarcoma?

Hemangiosarcoma is a cancer that starts in the cells that line blood vessels. Most commonly tumors are found in the spleen, heart or skin but they can also be identified in most parts of the body including the liver, bone, kidney and brain. Hemangiosarcoma is almost always malignant. These tumors are typically slow developing but spread quickly so metastasis has already occurred in most cases when the diagnosis is made.

Hemangiosarcoma is almost exclusively a disease of dogs. It occurs most commonly in dogs beyond middle age (older than 6 years) and is seen more in breeds such as the Golden Retriever, German Shepherd Dogs, Portuguese Water Dogs, Bernese Mountain Dogs, Flat Coated Retrievers, Boxers and Skye Terriers. In a recent Golden Retriever Health Study (published in 2000) the estimated lifetime risk of hemangiosarcoma in the Golden Retriever was 1 in 5 dogs.



Types of Hemangiosarcoma

Splenic Hemangiosarcoma

The spleen is a large organ in the abdomen that is not essential for life but does have an important role in the blood and lymph systems. Splenic tumors – benign or malignant – tend to burst and bleed profusely causing a hemoabdomen (blood filled abdomen). A sudden bleed can be life threatening but splenectomy (removal of the spleen) can stop the immediate risk to the patient. When a splenic mass has been identified with radiographs or ultrasound or due to a hemoabdomen, it is typically not possible to know whether it is a malignant mass such as hemangiosarcoma or benign until testing is performed after surgery. It has been estimated that 25% of dogs with splenic hemangiosarcoma also have heart base hemangiosarcoma.

Cardiac Hemangiosarcoma

The primary tumor location for cardiac hemangiosarcoma is the right atrium of the heart. This tumor is life threatening due to the possibility of the tumor rupturing and bleeding. A sac called the pericardium surrounds the heart and if the tumor begins the bleed, the pericardium fills with blood. This then puts the heart under a large amount of pressure and it can no longer properly pump blood to the body. Continued bleeding of the tumor can also lead to severe blood loss.

Dermal Hemangiosarcoma

Dermal hemangiosarcoma are lesions on the skin that typically appear dark purple to black in color. They are most commonly raised and are mostly seen on the non-haired areas of the body such as the abdomen. It has been reported that 25-30% of dogs with dermal hemangiosarcoma have metastatic disease.

Clinical Signs of Hemangiosarcoma

Due to the slow growing nature of hemangiosarcoma tumors and that they most commonly originate within internal organs, clinical signs of the disease are typically not visible until a tumor ruptures causing severe bleeding in the dog.

The most common clinical signs of splenic hemangiosarcoma will be anemia, lethargy and even collapse due to sudden rupture of the tumor. The gums will become very pale and potentially white due to the sudden loss of blood into the abdominal cavity. In some cases, a tumor may be identified prior to rupture. These patients typically

present with general signs of doing poorly. They may have a decreased appetite, lethargy and occasionally show signs of a painful abdomen.

Hemangiosarcoma of the heart may present differently than a splenic tumor. The most common clinical signs include lethargy, weakness, collapse, difficulty breathing and exercise intolerance. These signs are associated with the filling of the pericardium with blood and the inability for the heart to properly function under the extra pressure.

Dermal hemangiosarcoma can be felt or seen in or under the skin. These tumors may become ulcerated and bleed.



Treatment of Hemangiosarcoma

Treatment of hemangiosarcoma is largely dependent on the location of the primary tumor. Many dermal hemangiosarcomas can be cured by surgical excision. Chemotherapy and radiation may be recommended if full surgical excision of the tumor could not be obtained or if the dermal tumor penetrated deeper into subcutaneous tissues or muscle.

A tumor that is located in the spleen can be surgically excised by splenectomy (removal of the spleen). Dogs with cardiac hemangiosarcoma may need a pericardial tap to remove the fluid that builds up in the pericardium. The pericardial sac may also be removed if the buildup of blood is too severe to control. Surgery alone will provide a level of immediate relief, however, because these are highly malignant tumors, most have already metastasized prior to diagnosis. Following surgery to remove the primary tumor, chemotherapy may be considered.

Prognosis

Unfortunately, hemangiosarcoma is rarely curable and long-term prognosis is poor. Dogs with internal organ involvement live on average 2 months with surgery alone. Dogs without known metastatic disease and treated with surgery and chemotherapy live on average 4 to 8 months. Dogs who have splenectomy prior to rupture of the spleen may have a slightly better prognosis. While surgery and chemotherapy combined can increase survival time, fewer than 10% of patients will survive to 1-year post diagnosis.

As I stated in the beginning, I have personally lost a GWP to hemangiosarcoma of the spleen. Post splenectomy we hunted, he retrieved in the water and even made our way to nationals for him to have one last spin around the ring as a veteran. Briggs was with me for slightly less than 2 months post diagnosis but we made sure to make every minute of those two months count.

