



# NEWS FROM THE WORLD OF ONCOLOGY

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## Hemangiosarcoma



Hemangiosarcoma (HSA) is a common soft tissue sarcoma of blood vessels. HSA is commonly localized in the spleen but is also found on the heart, the liver and skin. Certain breeds have demonstrated a predisposition to the development of HSA and include German Shepherds, Golden Retrievers and Labrador Retrievers. Cutaneous HSA is seen most commonly in dogs with minimal pigmentation or thin hair coats, suggesting a UV exposure etiology. It is interesting to note that cutaneous HSA is much less aggressive and metastatic, compared to the visceral form. In cats, the incidence of cutaneous and visceral HSA is equal.

The Double Two Thirds Rule is an important rule of thumb to remember when splenic masses are noted in dogs. Two thirds of all masses on the spleen are malignant tumours and of these, two thirds are HSA. This means that any given mass on a dog's spleen has a 45% chance of being HSA. This tumour type is very aggressive with extensive metastatic involvement being common.

The work-up for suspected HSA should always include three view chest radiographs and abdominal ultrasound. HSA will be present on the heart in about 15-25% of cases and this high incidence justifies echocardiogram to assess for the presence of a right atrial mass. If a right atrial mass is present, the recommendation would be to surgically remove the mass as survival times are similar to splenic disease. For splenic disease, low stage (non-ruptured mass, no metastatic lesions) has a better prognosis compared to higher stage disease. Obviously the completeness of excision is important for a better prognosis.

Therapy for hemangiosarcoma is multimodal and includes the use of surgery and chemotherapy. When surgery alone is used, the average survival time is 19-86 days with 6% one-year survival. It is for this reason that surgery is followed by chemotherapy. When surgery is followed with doxorubicin therapy the median survival time is 172 days. The use of vincristine and cyclophosphamide has been reported. However, the survival times when these drugs are combined with doxorubicin is 171 days and appears to be of no added benefit.

Associated conditions of concern include a high incidence of thrombocytopenia (reported in 75-97% of cases), coagulopathies (noted in 50% of cases) and post-operative cardiac arrhythmias (24% of cases). It is for these reasons patients must be as stable as possible prior to surgery and will require intensive monitoring for the 24-48 hours following surgery.

Metronomics is a new direction that is gaining favour for adjunctive therapy of HSA. The theory behind metronomic therapy is that it is anti-angiogenic. Tumours of blood vessels are ideal targets for anti-angiogenic therapy. Preliminary data suggest that dogs treated with metronomic therapy following surgery and chemotherapy appear to have a survival advantage beyond the current 6-month range. It is for this reason that metronomic therapy is now included as a standard part of my treatment protocol for HSA.

**DR. KEVIN FINORA IS A BOARD CERTIFIED ONCOLOGIST AND SMALL ANIMAL INTERNIST. HE SEES PATIENTS WEDNESDAY (INCLUDING EVENINGS) TO SATURDAY AT VEC/RC SOUTH. PLEASE DO NOT HESITATE TO CONTACT DR. FINORA IF YOU HAVE ANY CANCER RELATED QUESTIONS.**

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