Hemangiosarcoma (HSA) is a malignant neoplasm that can affect many sites (e.g., spleen, right atrium, liver, subcutis). Tumors are aggressive; median survival times (MSTs) are highly variable depending on affected organ and stage (I, II, III). MST of dogs ($n = 67$) with stage III and stage I/II HSA were compared when treated with vincristine, doxorubicin, and cyclophosphamide (VAC). Twenty-five dogs had evidence of metastasis (stage III); 42 did not (stage I, $n = 14$; stage II, $n = 28$). The most common sites of metastasis were the lung and liver. Fourteen dogs received VAC chemotherapy as the only treatment modality and 50 received postoperative chemotherapy. Three dogs received neo-adjuvant chemotherapy followed by surgery. MST for the 67 dogs was 189 days (range, 17–742 days). MST for dogs with stage III and stage I/II tumors was 195 (range, 17–742) and 189 (range, 21–730) days, respectively, with no significant difference in MST between stage III and I/II. The MST for dogs with stage III splenic HSA was 195 days (17–742); for stage I/II, it was 133 days (23–415). Overall response rate was 86%, and overall 1-year survival rate was 10%. It was concluded that HSA dogs with signs of metastasis should not be denied treatment.

Commentary
Treatments for hemangiosarcoma, an aggressive cancer with a poor prognosis and modest treatment results, include surgery and chemotherapy, usually with anthracycline-based protocols. A modified VAC protocol is safe, although not likely superior to previously reported doxorubicin-containing protocols. The high response rate to modified VAC, and similar survival rates of dogs with stage III compared with stage I/II disease is encouraging; however, numerous limitations of this study make true conclusions difficult to establish. A comparison of outcomes between disease stages (I vs II vs III) would be interesting, as stage-I dogs are thought to do better. Modified VAC is another reasonable protocol for dogs with hemangiosarcoma.—Cecilia Robat, DVM, DACVIM (Oncology)

Source