Canine Hemangiosarcoma

Hemangiosarcoma is a malignant cancer of cells that line blood vessels called vascular endothelial cells. These cancerous cells tend to make tortuous and abnormal vessels, and so are commonly associated with sporadic bleeding events. Hemangiosarcoma is most commonly seen in middle aged to older large breed dogs, specifically German Shepherds, Golden and Labrador Retrievers. Tumors typically form in the spleen, skin, and heart. Cutaneous (skin) hemangiosarcoma has a guarded prognosis, but may potentially be cured by surgically removing the tumor. If local invasion is noted on the surgical biopsy, then chemotherapy will typically be recommended to follow surgery. Hemangiosarcoma that affects internal organs (spleen and heart) are often slow growing and show no clinical signs until acute collapse occurs due to severe internal hemorrhage. Dogs may wax and wane with signs of unexplained weakness, tiring more easily, and depression. Due to the slow growing nature of this disease, it is difficult to detect early, and so often dogs already have distant metastasis at time of diagnosis. Treatment involves surgery to remove the primary tumor, if possible, and chemotherapy. A Chinese herbal medicine, called Yunnan baiyao, is becoming more popular in palliative care for canine hemangiosarcoma for its pro-coagulant (helps control small bleeds) attributes. More studies are required to appropriately assess the efficacy of this drug. Prognosis for hemangiosarcoma is guarded. Median survival time (MST) for surgery alone (reduce risk of bleeding from primary tumor) is 19-86 days. Surgery and chemotherapy together provide an MST of 172-202 days, depending on clinical stage of the disease, and the 12-month survival rate is increased from 6.25% to 20%. A new potential immunotherapy may prolong survival times more when combined with surgery and standard chemotherapy.

Angiosarcoma in people is a very rare soft tissue sarcoma of blood vessel endothelial cells. It typically appears in the head and neck region, but may appear anywhere in the skin. It has been associated with radiation therapy, ultraviolet ray exposure, chronic lymphedema and exposure to toxins such as vinyl chloride and polychlorinated biphenyls. These tumors are highly aggressive and even with appropriate surgical technique the literature reports local recurrence of disease in 26-54% of cases. Distant metastatic rate is high as well, and 5 year survival times are reported to be between 12-61%. A potential benefit of following surgical removal with chemotherapy may reduce risk of local recurrence.