Thymidine kinase 1 (TK1), an enzyme involved in DNA synthesis, is associated with highly proliferating cells, particularly malignancies. Circulating TK1 levels have been measured and used to characterize several human hematopoietic neoplasms. Hemangiosarcoma (HSA) is the most common splenic malignancy in dogs. Because of hemoabdomen's emergent nature and prognostic differences between splenic masses, a screening test that could detect the presence of splenic neoplasia earlier and further differentiate between benign and malignant disease would be beneficial.

Serum TK1 levels were evaluated comparing 15 normal dogs with 62 dogs presented to emergency facilities with hemoabdomen and a splenic mass. Of the 62 dogs, 31 were diagnosed with HSA, 9 with other splenic malignancies, and 22 with benign lesions. TK1 levels were significantly higher in dogs with malignant disease compared with dogs with benign disease. To find out more about hemangiosarcoma, read Thymidine Kinase for Sarcomas by Dr. Michael Schaer at hemangiosarcoma-in-cats.

Thymidine Kinase for Sarcomas

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