EVALUATION OF AUTOIMMUNE DISEASE AS A RISK FACTOR FOR LYMPHOMA

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ABSTRACT

The immune system has an intricate relationship with cancer. It is responsible for the prevention, management, and resolution of cancer.

In people and Dogs autoimmune diseases have been linked to hematopoietic neoplasia. Our hypothesis was that canine patients recorded in the veterinary medical database (VMDB) as having autoimmune diseases (specifically IMHA and ITP) would be more likely to appear a second time in the VMDB with a diagnosis of lymphoma than dogs recorded as having atopic dermatitis. We further hypothesized that there would be no relationship between patients who were initially diagnosed with either atopic dermatitis—a common disease that can affect healthy dogs—or autoimmune disease and the incidence of soft tissue sarcoma, a non-hematopoietic, non-immune system based, neoplasia, as a control for disease relationship in the VMDB.

Records were retrieved from the Veterinary Medical Database. This is a database that sources outputs from 26 US veterinary referral institutions from 1964-2013. We queried the system for dogs who were subsequently recorded at least six months later for soft tissue sarcoma or lymphoma. Data were compared using a PERL script. Chi square analysis was used to evaluated we found that dogs who presented for autoimmune disease were not any more likely to present, 6 months later, with lymphoma when compared to dogs who presented with atopic dermatitis (p=0.748).