



ACUTE LYMPHOBLASTIC LEUKEMIA

What is acute lymphoblastic leukemia?

Disorders of the bone marrow are generally known as myeloproliferative disorders. Acute lymphoblastic leukemia (ALL) is a rapidly growing cancer of the white blood cells. The lymphocytes are a type of white cell that fights infections. With ALL, the bone marrow produces many unformed cells (called lymphoblasts) which would normally develop into lymphocytes. Because these lymphoblasts are abnormal-they do not develop normally and cannot fight infections. And, because there are so many of them,- they crowd out all of the other normal bone marrow cells. This then leads to low red cells and platelets.

How is it diagnosed?

The signs/symptoms that an animal can exhibit are often vague and can include lethargy, decreased appetite, weight loss, as well as other variable symptoms. Acute leukemias have a more sudden onset and they are more aggressive. A physical exam and a general blood profile which includes a complete blood cell count (CBC) can generally give the diagnosis of ALL. Severe anemia, low numbers of normal white blood cells, and low platelets are generally seen. One can also see pale gums and bruising on the skin surface.

How is it treated?

The goal of treatment is to eliminate the abnormal lymphoblasts and allow the normal cell population to return. Combination chemotherapy using a variety of different drugs is used. Chemotherapy is generally given weekly. In addition, supportive care (blood transfusions, intravenous fluids) is given to extremely debilitated patients.

What is the prognosis?

The prognosis for ALL is poor. Even with aggressive chemotherapy protocols, the average survival time is approximately 2-4 months. Some patients may require aggressive supportive care throughout treatment.