

NEWS FROM THE WORLD OF ONCOLOGY

KEVIN FINORA DVM, DIPLOMATE ACVIM (ONCOLOGY AND SMALL ANIMAL INTERNAL MEDICINE)

HISTIOCYTIC DISEASE

Histiocytic disease is a group of disorders for which our knowledge is evolving. The lack of complete understanding relating to etiology, pathogenesis and complex nomenclature, have caused this to become a controversial area in veterinary oncology and pathology. Histiocytic disease can be divided into two groups based on cell of origin (dendritic cell and macrophage), as well as into reactive versus neoplastic disease. Histiocytic refers to cells of the monocyte/macrophage cell line.

As a general overview clinical histiocytic disease can be divided into three major groups: Cutaneous Histiocytoma, Reactive Histiocytosis and Histiocytic Sarcoma.

Cutaneous Histiocytoma is a benign neoplasm commonly seen in young dogs, though it can appear in older dogs. Typically these lesions will regress on their own. They are tumours of epidermal origin involving the Langerhan cells.

Reactive Histiocytosis is divided into two groups: Cutaneous Histiocytosis and Systemic Histiocytosis. Both forms of Reactive Histiocytosis involve the non-neoplastic proliferation of activated interstitial dendritic cells. Cutaneous Histiocytosis is a benign disease process that tends to be steroid responsive. In some situations chemotherapy drugs are needed to control the disease. The disease tends to wax and wane and the approach to treatment is management and not usually cure. Cutaneous Histiocytosis involves skin only. Spontaneous regression has been reported but is rare. Systemic Histiocytosis is similar to Cutaneous Histiocytosis but involves organs in addition to skin, including mucous membranes and lymph nodes. Long-term treatment is needed and usually involves treatment with oral immunosuppressive drugs such as cyclosporine. The treatment course is prolonged, and the disease will wax and wane, though generally this disease is not thought to be fatal. However, due to difficulty in obtaining long-term control, many animals with this disease eventually are euthanized.

Histiocytic Sarcoma is the neoplastic form of histiocytic disease. Histiocytic Sarcoma exists in two forms, a local form and a disseminated form. The localized form consists of neoplasia arising within a single site. These tumours can be diagnosed with histopathology and immunohistochemistry where they will be positive for CD18. This form may be amenable to surgery followed by chemotherapy. There is a paucity of data available to speak to the success of surgery and adjunctive chemotherapy as a treatment for localized histiocytic sarcoma but survival times between 3-6 months have been reported. Disseminated Histiocytic Sarcoma was formerly known as malignant histiocytosis. This is the most serious form of Histiocytic Sarcoma. It has multi-organ involvement and is characterized by rapid progression. On immunohistochemistry this disease is CD18 positive. This disease can be treated with chemotherapy with an expected survival time of 106 days. This disease is uniformly fatal.

Finally malignant fibrous histiocytoma is a group of tumours with histological features of fibroblasts and histiocytes. This disease is distinct from the general classification of histiocytic diseases mentioned above. They are localized to the subcutis and have a low metastatic rate. Despite their nomenclature, they are CD18 negative and are not believed to be of true histiocytic origin. They are best thought of as a type of mesenchymal sarcoma similar to fibrosarcoma. They can be treated with methods of local control. They are not thought to be very chemotherapy responsive.

Dr. Kevin Finora is a board certified Oncologist and Small Animal Internist. He sees patients Wednesday (including evenings) to Saturday at VEC/RC South. Please do not hesitate to contact Dr. Finora if you have any cancer related questions.

Dr. Serena Liu is a board certified Pathologist and is based with the ALX Lab at the Animal Medical Center in New York City.



TO BOOK AN APPOINTMENT WITH A VEC SPECIALIST PLEASE CALL (416) 920-2002

This and other VEC faxes can now be downloaded online at

<http://www.vectoronto.com/newsletter.php>