



Lymphoma in the Cat Fact Sheet

What is Lymphoma?

Lymphoma is a cancer of the white blood cells. In cats there are multiple manifestations of this disease and they are typically distinguished by the anatomical site that is affected. Certain anatomic presentations are associated with an improved prognosis such as nasal lymphoma and lymphoma of the cranial mediastinum (lymphoma arising in the chest, in front of the heart and between the lungs). Historically, feline leukaemia virus has shown a strong association with lymphoma and leukaemia incidence but this association seems to be declining.

Presentation

Lymphoma can present in countless different ways. This is largely a consequence of the fact that lymphoma (and leukaemia) in cats can affect many different organs. Most classification schemes for feline lymphoma reflect the anatomic distribution of the lesions although some pioneers have noted the importance of the appearance of the cancerous cells. In human haemato-oncology, there are over 40 different kinds of lymphoma and leukaemia that are recognised and there are moves afoot to try to sub-classify lymphoma in dogs in similar ways.

Above: Pebbles who was extremely unwell with lymphoma in the chest, here 4 weeks after initiation of chemotherapy

Early investigations in feline lymphoma have failed to show prognostic significance associated with the T-cell or B-cell sub-types, which is considered one of the primary determinants of outcome in human and canine lymphoma. Undoubtedly further

investigations in the future will help us to predict treatment response more reliably.

Currently, the most frequently diagnosed form of feline lymphoma is the alimentary or intestinal form. Patients often present with a history of reduced appetite, intermittent vomiting and sometimes a palpable mass in the abdomen. Diagnosis is made on biopsy, either by fine needle aspirate, core biopsy or surgical biopsy. In the absence of a detectable mass, some cases are presented with a generalised thickening of the intestine. These patients can have a much more insidious disease progression and may represent a different sub-type of feline lymphoma, often with a much improved prognosis.

Other frequent or notable lymphoma presentations include cranial mediastinal lymphoma and renal (kidney) lymphoma. For an unknown reason cranial mediastinal lymphoma is recognised more frequently in young cats, often only one year old. Cats will present to their veterinary surgeon with severe respiratory distress and chest x-rays indicate the presence of free fluid in the pleural space. A diagnosis can often be made on cytological analysis of the pleural fluid. These patients can be extraordinarily responsive to chemotherapy provided that the initial respiratory complaint can be stabilised.

Renal lymphoma appears to be a disease of the older cat. Cases usually present with reduced appetite and weight loss. Often an owner identifies a large intra-abdominal mass that is actually the enlarged left kidney. These cases invariably present with a degree of renal failure. Diagnosis is best made on a fine needle aspirate of an enlarged kidney. While they can be responsive to chemotherapy, the significant kidney damage that has inevitably arisen prior to diagnosis persists. This has consequences both in the short and the long term. In the short term, chemotherapy drug metabolism will inevitably be affected by the reduction in renal function. In the long term, renal damage is likely to be progressive and therefore, even if the lymphoma enters complete remission, life expectancy can be reduced.



Treatment

Multiple treatment options have been described in the literature. Currently there appears to be some discrepancy about which is the best type of treatment protocol to use. Essentially two basic protocols are used reasonably widely, the three drug COP protocols employing the drugs vincristine, cyclophosphamide and prednisolone, and the four drug CHOP protocols which also incorporate the drug doxorubicin. The addition of doxorubicin appears to significantly increase the risk of gastrointestinal side effects, mostly anorexia, and there is a lack of consensus about whether there is a benefit in terms of overall survival.

Our advice is that any practice inclined to use chemotherapy in the management of feline lymphoma adopts a single (COP) protocol and that this same protocol is used for all cases diagnosed. The ability of the veterinary team to recognise when treatment is going to plan and when it is not is far more important than which treatment plan is theoretically associated with modest improvements in overall survival. Decisions constantly need to be made in feline lymphoma management and these decisions can only be made competently by a team of clinicians who are familiar with the drug protocol in use and the expected panoply of responses.

Prognosis

Feline lymphoma cases currently appear to fall into three groups from a prognostic point of view. There are some that fail to show a good response to any chemotherapy offered. For these patients, their lymphoma is unfortunately fairly rapidly progressive. Patients in the middle group tend to show a degree of response to the treatment but never achieve complete normality and for these patients there is an average life expectancy of approximately 4 months. The third group achieve complete remission from their lymphoma and their life expectancy is measured in years.