



Chemotherapy in Dogs and Cats

The administration of chemotherapy to animals carries a certain stigma and not surprisingly so...

Comparisons with human experiences with chemotherapy lead to a natural suspicion that pets might likewise endure severe side effects from their treatment. It is therefore important to emphasise that chemotherapy is only used in pets when the cancer in question has a high probability of sensitivity to the treatment.

Quality of Life First and Foremost

As always, the goal of veterinary cancer therapy is the restoration or improvement of quality of life first and prolongation of a good quality of life second. It is with this premise in mind that patients and cancers are selected for chemotherapy administration. Certain cancers are regarded to be very sensitive to chemotherapy, others are less so and there are tumours that do not appear to respond to current veterinary chemotherapy drugs at all.

All patients receiving chemotherapy are potentially at risk of developing side effects and therefore health assessments need to be made prior to calculation of dosages and institution of therapy. Blood tests and physical examination findings can highlight important issues such as kidney problems or low white blood cell numbers. These might necessitate chemotherapy dose adjustments.

Despite every endeavour to ensure that patients do not experience chemotherapy induced side effects, it can still happen. For pets receiving chemotherapy at Davies Veterinary Specialists, regular appointments with the oncology team are provided to ensure that there is ample opportunity to discuss progress and to adjust the treatment plan if appropriate.

Right: Maxi about to receive chemotherapy for a grade 2 mast cell tumour of the prepuce.



Informed Consent

All medical and surgical procedures carry an element of risk for the patient. For this reason it is important that the patient or their carer is given all the information they need to make an informed decision about whether or not to pursue the treatments offered. Chemotherapy is no different in this respect. For this reason, time is always made for owners to discuss their concerns about chemotherapy with one of our oncologists, prior to instituting a course of treatment. During this appointment owners will discuss general concerns associated with both chemotherapy and cancer and specific matters related to the disease and treatments in question. Owners will be equipped to recognise chemotherapy induced side effects, should they occur, and will be educated in how to manage them.

Cancers Sensitive to Chemotherapy

Cancers of the white blood cells (lymphoma and leukaemia) are particularly sensitive to chemotherapy in most instances. Therefore, chemotherapy is the main form of treatment for these conditions. The chemosensitive forms of canine lymphoma will go into complete

remission for long periods of time following appropriate management. Some forms of lymphoma and leukaemia in dogs and cats can remain in complete remission for years.

Other conditions primarily managed by chemotherapy alone include multiple myeloma, which is related to lymphoma, and transmissible venereal tumour (TVT). TVT is extremely rare in the UK but it can actually be cured by chemotherapy.

Right: Rosie 4 weeks into chemotherapy for multicentric lymphoma.



“Adjuvant” Chemotherapy

Sometimes chemotherapy is used following surgery when it is assumed that a metastatic cancer is left behind that the surgery could not remove. This is called adjuvant therapy. Tumours in which this approach is regularly used include osteosarcoma, haemangiosarcoma and feline injection site sarcoma. Under some circumstances this approach is also used in mammary, thyroid, anal sac, bladder and tonsillar cancers.

Palliative Chemotherapy

Chemotherapy can be used to enhance quality of life without there being a strong likelihood that the tumour would ever go into complete remission as a consequence of therapy. The quality of life improvements that are seen in this context can be marked. This approach to the management of veterinary cancer is used in particular in the management of inoperable mast cell tumours, anal sac tumours, bladder cancer, osteosarcoma (in conjunction with radiotherapy) and feline injection site sarcomas.

“Neoadjuvant” Chemotherapy

A relatively recent innovation in chemotherapy is the administration of treatment prior to definitive surgical intervention. It is supposed that this reduces the size and invasiveness of a primary tumour, increasing the surgical cure rate. This is called neoadjuvant therapy. In our

clinic this approach is currently used primarily in the management of canine lung tumours and mast cell tumours and in feline injection site sarcomas.

Chemotherapy Safety

Chemotherapy is cytotoxic. This means that it can cause birth defects, genetic mutations and even cancer. For that reason appropriate precautions must be taken when handling chemotherapy and treatment should only be administered to appropriate patients.

Chemotherapy metabolites are excreted in the urine and faeces and care must therefore be taken when handling body waste. All owners of patients receiving chemotherapy should be educated in matters relating to waste management.

Personnel involved in the purchase, storage, preparation and administration of chemotherapy must be adequately trained. Employers have a legal obligation to provide adequate training and safety equipment under the Control of Substances Hazardous to Health (CoSHH) Regulations 2002. Guidelines are available for safe handling of cytotoxic drugs under Appendix 1 of the CoSHH Approved Code of Practice.

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