PET DISEASE:

Any cancer

STUDY NAME:

Identifying genetic variants which influence chemotherapy tolerance in dogs

PURPOSE OF THE STUDY:

Try to identify genetic influences associated with significant adverse effects to chemotherapy

BACKGROUND:

Cancer is a leading cause of death in older dogs. Chemotherapy prolongs survival in pet dogs with a variety of cancers. A primary concern for all pet owners contemplating chemotherapy is whether their pets' quality of life will be diminished by the adverse effects related to treatment. Response to chemotherapy is variable and unfortunately adverse effects affect 30–40% of patients treated with chemotherapy. Therefore the 'standard' doses of chemotherapy are less than ideal for some dogs and more than tolerable for others. With our current tools, it is not always easy to determine the best dose for an individual dog before starting the treatment, and doses are typically adapted along the course of the chemotherapy protocol.

Therefore, in this study we will undertake genetic screening to try to identify genetic influences upon which dogs suffer significant adverse effects of chemotherapy. If these are identified we will undertake further laboratory research to improve understanding of how these genetic determinants influence response to chemotherapy. We hope that in the long run, we will be able to use this information to start to 'personalise' the dose of chemotherapy that each dog receives

ELIGIBILITY CRITERIA:

Dogs diagnosed with cancer and undergoing chemotherapy treatments with doxorubicin

STUDY PROTOCOL:

- Your dog's treatment will not be different based on whether or not you decide to let them be involved in the study. Every time a chemotherapy drug is given, screening blood tests are carried out before administration. We will simply retain left over blood which has been collected as part of normal practice and use this for the project. No additional samples will be collected.
- Clinical data, including possible toxicity associated with doxorubicin administration, will be collected. Genetic tests will be performed on the stored blood samples. A complex analysis will then be run to help us identify possible gene markers associated with chemotherapy toxicity.

HOW WILL PARTICIPATION ALTER MY PETS TREATMENT:

- There will be no changes to your pet's treatment due to participation in this study.
- The results of the study will not be released in time to benefit your pet, but may benefit other pets in the future.

OWNERS RESPONSIBILITIES:

None

FINANCIAL SUPPORT:

- This project has been awarded by a grant, which will cover all the costs related to the study.
- The standard chemotherapy treatments will be payable by the owner

This project is led by Dr David Killick, Senior Lecturer in Veterinary Oncology at the University of Liverpool, and AURA Veterinary has been selected as one of the participating centre.

For questions regarding the clinical trial, please email hello@auravet.com with the subject "Chemotherapy Pharmacogenomic Study".