Exploring a Novel Diagnostic and Treatment Technique in Combination with Surgery for Thyroid Tumours in Dogs

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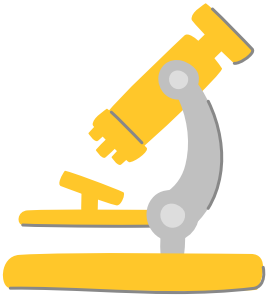
WHAT IS A VETERINARY CLINICAL TRIAL?

A veterinary clinical trial is a research study involving client-owned animals with the ultimate goal to advance animal and human health care! An interventional clinical trial allows us to measure outcomes through data and sample collection of a new or novel therapeutic approach compared to one that is standard of care. These studies evaluate new and improved ways to prevent, diagnose or treat diseases.



WHAT ARE PORPHYSOMES?

PORPHYSOMES are a **novel nanomedicine** developed by Dr Gang Zheng (University Health Network, Toronto). This nanomedicine is delivered through a catheter in the vein and concentrate in areas with tumour cells (either primary or metastatic). PORPHYSOMES can be used to highlight the tumour by using a specialized camera and light called near-infrared fluorescence (NIRF). This allows for image-guided surgery, tumour margin assessment and lymph node staging. PORPHYSOMES can also be used to deliver treatment directly to the tumour and/or kill any cells remaining after surgery using photoablation - photodynamic therapy (PDT).

WHAT IS THE PURPOSE OF THIS STUDY?

For veterinary patients, surgery is the primary treatment for many tumour types. Challenges can include tumours that are too large to safely remove or metastatic disease (spread) that cannot be removed. The objective of this study is to evaluate the potential applications of PORPHYSOMES and PDT in veterinary clinical patients. PORPHYSOME-enabled therapies can have an immediate impact on cancer management providing better patient outcomes. This is a translational therapeutic, meaning that the information gained from this research will be used to treat future dogs, cats and humans. A human clinical trial with PORPHYSOMES is planned for 2022!

INCLUSION CRITERIA

Dogs ≤ 60kg, with a freely moveable thyroid tumour and interested in pursuing CT & Surgery

EXCLUSION CRITERIA

Previous history of lipid-based drugs, liver dysfunction or hypersensitivity to iodine, previous tx for thyroid tumour, active disease unrelated to tumour

FINANCIAL INCENTIVE

Clients are responsible for staging costs (which may include cervical ultrasound and chest x-rays or neck CT +/- cytology) completed at OVC or other clinic.

Covered costs include consultation, study protocol and materials, patient care (hospitalization and medications) and tissue analysis. Postoperative chemotherapy and other treatments, if elected, are not included in this study.

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1

Following routine staging and confirmation of a thyroid tumour either at OVC or your veterinarian, you will have a virtual consult with a member of the research team.

If your pet is eligible and you are interested in participating, an appointment will be booked.

2

When your pet arrives to the hospital, an IV catheter will be placed and your pet will receive a slow infusion of PORPHYSOMES. If your pet is anxious, mild sedation may be required for the infusion.

During and following the infusion, careful monitoring will be performed by the research team, including a veterinary technician.

Depending on the assigned protocol, your pet may be discharged at the end of the day.

3

Either 6, 24 or 48 hours following the infusion, your pet will have a CT scan under general anesthesia.

After the CT, PDT will be performed. This will take about ~20 minutes depending on the size of the tumour.

On recovery, your pet may be discharged to your care or remain in hospital until surgery.

4

Your pet will have a second CT scan 48 hours following PDT to assess for changes within the tumour. Under the same anesthesia, standard of care surgery to remove the thyroid tumour (thyroidectomy) will be performed. The surgeon may also choose to remove any surrounding lymph nodes that may be suspicious for metastases.

Removed tissues will be sent to the laboratory for histopathological analysis.

5

Your pet will recover under careful postsurgical monitoring and have additional blood samples collected for the study.

Your pet will be discharged to your care 24-48 hours after surgery.
This is the standard timeline for normal postoperative patients.

6

A follow up appointment will be booked at OVC 10-14 days after surgery for a final blood sample collection and to remove your pet's sutures.

Questions about this study?
Send us an email:
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