THE UNIVERSITY of EDINBURGH
The Royal (Dick) School of Veterinary Studies

05

The newsletter from the **Edinburgh Veterinary Teaching Hospitals** | Issue 05

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Welcome

Dear Colleagues,

Welcome to the latest of our newsletters, designed to keep you up to date with what's happening here at the Dick Vet.

We offer a wide range of treatments and deal with very many complex cases each week, however among the most difficult are those faced by our oncology patients and clients. In this edition we profile the interdisciplinary approach provided by our Integrated Oncology Care Team to deliver the best possible care and to make sure that clients can take decisions in the best interests of their pets.

While we regularly deal with a wide variety of cases, we also strive to discover more about the illness to inform our research and the type of treatment we are able to offer in the future. Dr Richard Elders is studying the DNA of mast cell tumours. If you have any suitable cases or would like more information on this research, please contact Richard directly – his details are provided overleaf.

We are continuing to plan further developments in the services we offer and I look forward to bringing you further updates in the future.

With best regards

Professor David Argyle
Head of School

Integrated Oncology Care

We provide a cohesive and considered approach to oncology cases requiring surgical intervention.

The soft tissue surgery service runs two parallel clinics each week, dedicating one surgeon to an oncology stream while the other sees routine referral cases. This allows us to provide a cohesive and considered approach to those oncology cases that require surgical intervention, while also ensuring a shorter wait between the diagnosis and staging of a cancer and surgical treatment.

Most owners will meet a surgeon on the day of their pet's investigations with the majority of surgeries being scheduled for the same week. The four soft tissue surgeons, Kieri Jermyn, Ana Marques, Samantha Woods and Donald Yool are all European Specialists in Small Animal Surgery with a wealth of experience in performing oncologic and reconstructive surgery. The oncologists, Jessica Lawrence and Richard Elders, both Specialists in Oncology, offer advanced medical and radiation therapy.

Adopting this team approach to cancer treatment allows us to discuss the various options for the more complex cases in detail, with the ability to plan the surgical approach to be taken bearing in mind any likely follow-up treatment. This ultimately provides clients and their pets with a robust therapeutic approach appropriate to their needs.

As the Dick Vet's clinical oncology team is comprised of boarded specialists in Medical Oncology, Radiation Oncology and Soft Tissue and Orthopaedic Surgery, in addition to dedicated Oncology Nurses and a Radiation Therapist, it provides a fully integrated 'Global Oncology Service' for pets.

The challenges faced by our oncology patients and clients can be incredibly emotive and heavily influenced by personal experience, finances and patient welfare concerns. The Dick Vet's Integrated Oncology Care Team provides co-ordinated patient care and evidence-based treatment decisions with the expertise and resources to pursue more novel therapeutic options where appropriate. Our goal is to provide remarkable care for our pets and clients, and to ensure that clients arrive at decisions that make sense for them and their pets.

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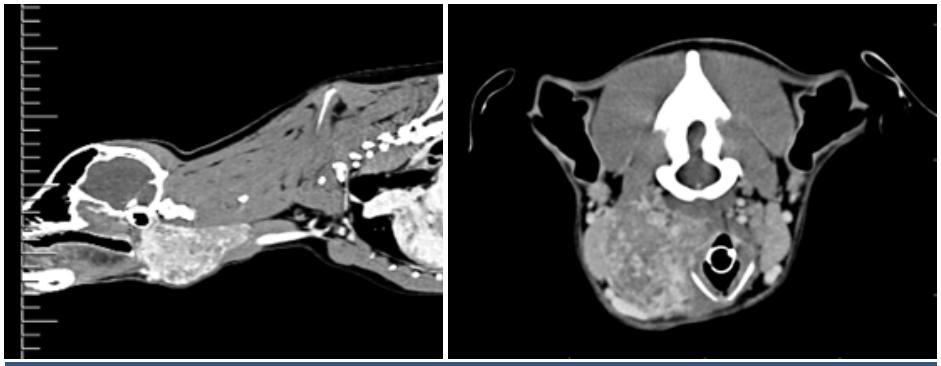
Case Study: 'Lucky' A Seven Year Old Terrier Cross

When a 7 year old terrier cross ('Lucky') presented to the Oncology service with a large ectopic thyroid carcinoma in the caudo-ventral neck region, the Clinical Oncology Team had to consider all options. Thyroid tumours in dogs are locally aggressive with a moderate propensity to metastasise.

Fortunately, no metastasis or concurrent disease was apparent so computed tomography (CT) was performed to evaluate therapeutic options. The following images demonstrate the high degree of infiltration into the adjacent tissue with lateral displacement of the trachea and oesophagus.



The treatment of choice for canine thyroid tumours is surgical resection but suitability of surgery is dictated by many factors, including size, fixation and extent of involvement of adjacent structures. Our Multi-Disciplinary Oncology Team collaborated to determine the optimal strategy. In Lucky's case, surgery was difficult due to the tumour's infiltrative nature and carried significant perioperative morbidity and mortality risks. Because thyroid tumours are responsive to external beam radiation therapy, preoperative definitive-intent radiation therapy was prescribed with intent to proceed with surgical resection following tumour response. Fractionated radiation therapy (low doses of radiation therapy given daily) allows tumour response while minimising normal tissue side effects. Sagittal (left) and axial (right) images demonstrate the radiation dose distribution throughout the tumour; colours range from red (highest dose) to blue (coldest radiation dose), highlighting that the tumour is targeted appropriately while critical structures such as brain and spinal cord receive little to no radiation dose.

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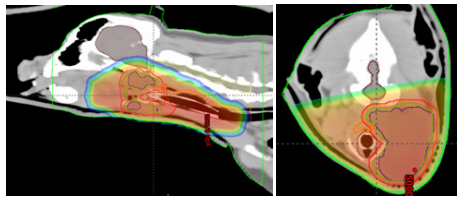
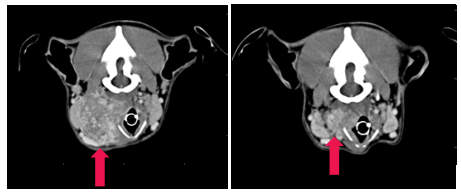


Four months after RT and follow up CT scans to monitor response, partial tumour response (reduction in tumour diameter by > 30%) had occurred and Lucky underwent surgery. With a careful approach, unresectable thyroid tumours carry a good prognosis with long term survival reaching 2-3 years post diagnosis.



The axial images above represent the tumour pre-radiation therapy (left) and post-radiation therapy (right).

Labradors with Mast Cell Tumours Sought for Project

Mast cell tumours are one of the most common neoplasms affecting Labrador Retrievers, this tumour frequently behaves aggressively in this breed.

At the Royal (Dick) School of Veterinary Studies, we are studying the genetic changes in the DNA of these tumours so that we can try do develop better preventative, diagnostic and treatment strategies for the disease. We are presently looking to recruit Labrador Retrievers with mast cell tumours for this study, and would like to encourage referrals of Labrador Retrievers with cutaneous mast cell tumours of at least 2 cm diameter to our Oncology service. Our Oncologists work closely with our Soft Tissue Surgeons, bringing together specialist experience in radiation therapy and reconstructive surgery for small and large masses, including those in the most challenging anatomical locations.

If you have a suitable patient, or you would like to find out more, please contact **Richard Elders** **richard.elders@ed.ac.uk**, **0131 650 7650** ext. 4