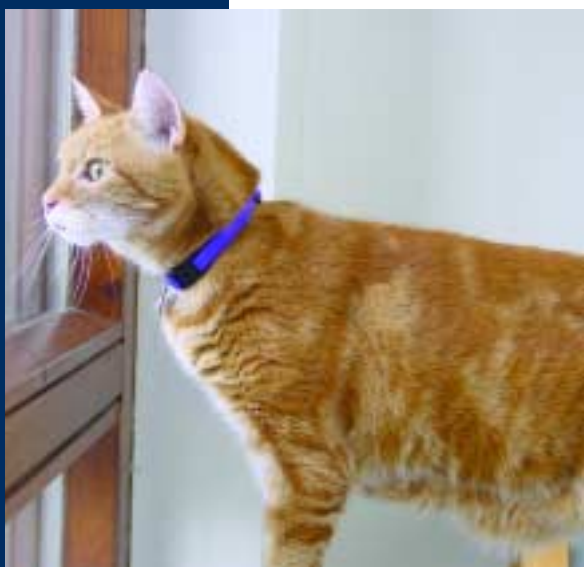


Animal Health Trust
Veterinary News

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AHT Feline Unit introduces radioiodine therapy for hyperthyroid cats



The AHT is pleased to announce that it is now able to offer radioiodine therapy as a treatment for hyperthyroidism in cats. The Trust is one of only 4 centres in the UK that is offering this form of therapy, but radioiodine is regarded by many to be the treatment of choice for hyperthyroidism cases, being curative in 94–97% of cases following a single treatment. Furthermore, this therapy is without

side effects other than the occasional induction of hypothyroidism (which is managed readily by thyroxine supplementation). The treatment may not be advisable in cats with severe concurrent disease (eg heart failure, renal disease) but it is appropriate for the majority of cases.

All cats referred to the Trust for this treatment will be assessed and investigated prior to the radioiodine (I^{131}) therapy to ensure they are suitable candidates. Initial investigations will include routine haematology, biochemistry and urinalysis, and a T4 assay. If necessary, we will undertake radiography and echocardiography to assess

cardiac status. Radioiodine and other treatment options will always be explained and discussed with clients before proceeding. Ideally we prefer to assess cats 1–2 weeks prior to the administration of I^{131} , but, if necessary, arrangements can be made to carry out these investigations immediately prior to therapy. Where adequate tests have been conducted prior to referral (blood tests, radiographs etc) these will not be repeated unless necessary. Prior to therapy with I^{131} , medical treatment for hyperthyroidism (carbimazole etc) will need to be withdrawn for a minimum of 7 days.

Following the administration of I^{131} (by subcutaneous injection) the treated cat must remain in isolation for 3–4 weeks and, regrettably, owners are not permitted to visit during this time. Only minimal contact (handling, feeding and cleaning) is permitted during the early part of this period.

Following treatment, a repeat blood sample is collected, in particular to check T4 levels and renal function, before the cat is discharged.

The cost of radioiodine therapy of hyperthyroid cats is likely to be between £500 and £900 depending largely on the duration of hospitalisation and the extent of the investigations carried out prior to therapy.

For further information or to make a referral request, please contact: Dr Andy Sparkes at the Small Animal Clinic.

Donations provide specialist video equipment

Our ophthalmology and neurology units have received a micro-video camera especially adapted to fit the operating microscope. This allows surgical procedures to be monitored and recorded as well as providing an extremely valuable teaching aid for visiting veterinary surgeons and residents.

We are very grateful to all our clients who have made donations both to the neurology and ophthalmology unit and offer a special thank you to the Kent County Committee for raising funds to help us purchase this piece of specialised equipment.



Small animal nursing – a personal view

The Animal Health Trust's small animal clinic, situated on a parkland site outside Newmarket, was purpose built and opened in 1996. The move from the former building was very exciting for all concerned.

The clinic specialises in the disciplines of oncology, dermatology, neurology, ophthalmology, feline medicine, soft tissue surgery, imaging and anaesthesia.

It houses state of the art facilities including sophisticated monitoring equipment, incubators, hydrotherapy pet beds, a special bathing unit and a new MRI scanner.

Nursing cover is provided 24 hours a day and the nurses work a shift system. Those working in the clinic are able to utilise their nursing skills 100% of the time and cases can be complex requiring new methods of diagnosis and treatment. There is no definition of a typical day, or typical patient, and this can sometimes test a nurse's emotions. Nursing work at the Trust involves assistance with initial consultations and attending to the needs of patients on an 'out-patient' basis, working within the theatres and assisting with surgical procedures, the care of patients in kennels (from routine feeding and care to physiotherapy and nursing the critical patient). Patients stay longer than in general practice, therefore close bonds can be formed with patients and their owners. Inevitably, there are times when no further treatment is available or advisable and this



can be very draining. However, particularly with oncology, we can often extend the patient's life which is very rewarding, knowing how special these months may be for the owner. The days can be busy and tiring, but offer a high level of satisfaction for nurses knowing they have strived to provide the best nursing care possible. For many, nursing at the Animal Health Trust is the height of a veterinary nursing career and provides the opportunity to learn and work with vets who excel in their field.

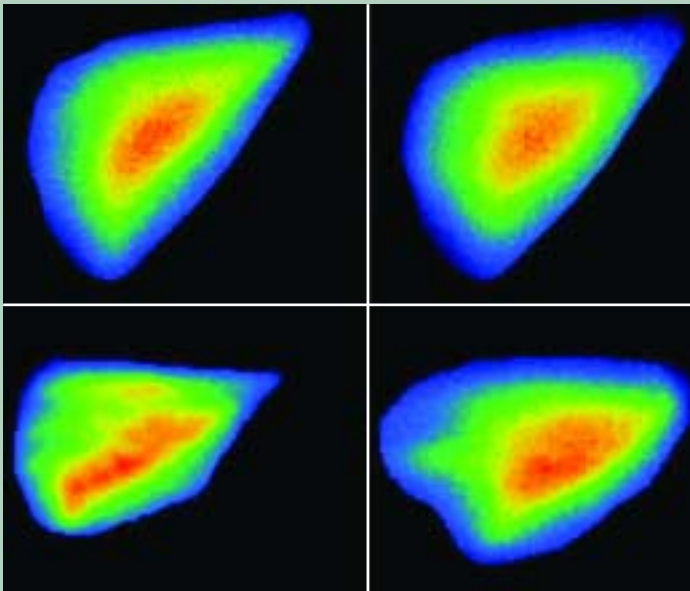
The AHT Nurses club is very popular, both with Trust nurses and those from general practice. The club provides nurses with a high standard of CPD throughout the year and have been fun and enjoyable for me to organise and run.

As I write this article I am preparing for my last day here. I have worked at the Trust for 6 years, experienced many different cases, learnt a huge amount and had plenty of highs and lows. I feel very privileged to have worked with so many experienced and friendly people. I have enjoyed my time enormously and will be sad to leave, although I look forward to my challenging position as Senior Critical Care Nurse in a veterinary referral/accident & emergency centre in Australia.

If I were ever to return to the UK, I would love to come back to the AHT – personally I believe this says it all.

Katie Collard

Equine chronic obstructive pulmonary disease (COPD)



Ventilation images of the left lung of a healthy horse (top left) and a horse with moderately severe RAO in clinical remission following treatment and 3 months at pasture (bottom left) obtained using krypton and perfusion images obtained using Tc-MAA (healthy – top right; RAO – bottom right). In the healthy horse both ventilation and perfusion images are similar in distribution of radioactivity (red = highest counts, black = lowest) and the lung border is similar in both images. Whilst the perfusion image is relatively normal, the ventilation image is reduced in size and has an abnormal and less regular distribution of radioactivity. Images were acquired and analysed using a HERMES system from Nuclear Diagnostics.

Chronic obstructive pulmonary disease (COPD) is one of the most frequently occurring medical conditions of horses in the United Kingdom. The condition is very variable in its presentation; at one end of the spectrum severe wheeziness, dyspnoea, coughing and nasal discharge and, at the other, the low-grade form characterised solely by reduced exercise tolerance and poor performance.

COPD occurs due to a hypersensitivity to moulds in the horse's environment. In many ways it is similar to occupational asthma in man. The term 'COPD' is somewhat misleading having been borrowed from human medicine where it describes a rather different syndrome. Recently it has been suggested that the name of the equine condition be changed to recurrent airway obstruction (RAO), a term that would better describe the equine disease.

The respiratory referral service for treadmill exercise testing at the Trust is well known for investigating reduced exercise tolerance, poor performance and abnormal respiratory noise during exercise, problems that often defy diagnosis by traditional resting techniques. It is perhaps less well appreciated that the clinical respiratory service led by Dr Colin Roberts also investigates horses with lower respiratory tract disease, which frequently involves RAO. Dr Roberts and his colleague Dr David Marlin, a respiratory physiologist, are currently studying the mechanisms involved in RAO. For this work they are using a group of affected animals that have been donated or provided on long term loan by their owners. The group of RAO-affected horses was established last year and the team are still seeking further cases.

Equine CPD

Due to a number of requests from veterinary practices, we are pleased to announce a practical equine cardiac ultrasound course to follow our practical equine cardiology course. This one-day course supported by the University of Edinburgh, will be held at the Animal Health Trust in Newmarket on 29th June. The cost, including lunch, will be £235.00 (excluding VAT). A 10% discount will be available to delegates attending the practical cardiology courses on 28th June at the AHT and 18th July in Edinburgh.

This course has been designed to teach veterinary surgeons how to scan the horse's heart. It will cover recognition of normal cardiac anatomy and common cardiac abnormalities. It will also cover measurement of intracardiac dimensions and 'heart scoring'. An introduction to Doppler echocardiography will also be included, with practical tuition in the use of these advanced cardiac imaging modalities for interested delegates. The course should help veterinary surgeons make maximal use of their ultrasound technology and to aid diagnosis and prognosis for horses with cardiac disease. The course will be suitable for veterinary surgeons in equine practice with ultrasound facilities considering extending their use into cardiology. It will also be of interest to veterinary surgeons preparing for the RCVS certificate in cardiology.



This is a practical hands-on course and therefore delegate numbers will be limited. For further information please contact Fiona Milligan, CPD Coordinator, The University of Edinburgh, Office of Lifelong Learning, 11 Buccleuch Place, Edinburgh EH8 9LW Tel: 0131 651 1820 Fax: 0131 651 1746.

Affected horses joining the group live outdoors for most of the time, this being the best way for sufferers to be managed. They take part in studies of the disease involving techniques used routinely in man and horse and at the end of their time in the group will either be returned to their original owners or rehomed. If you have a horse or a client with a horse who suffers from RAO (ie COPD) and would be prepared to allow him or her to join the group, please contact Dr Roberts or Dr Marlin at the AHT.

Use of ultrasound guided fine needle aspirates

The growing use of ultrasound in veterinary medicine has resulted in an increased use of minimally invasive techniques to obtain pathological samples that would previously have required exploratory surgery. Ultrasound guided fine needle aspirates (FNA) allow the ultrasonographer to visualise exactly where the biopsy



Ultrasound guided biopsy of an abnormal mass.

needle is going. This has 2 main benefits; first delicate or vital structures such as major blood vessels, the eye, biliary tree etc can be avoided. Secondly, the location from which the sample is taken is known, something that is not always known with blind samples.

FNA samples have many advantages over more invasive techniques of biopsy. For example, they can often be performed with minimal or no sedation, avoiding the need for a general anaesthetic. Also, the samples can be processed within minutes allowing rapid diagnoses to be made, rather than several days as is the case for histopathological samples.

Many abnormalities visible with ultrasonography are non-specific and may represent benign or incidental changes or something more serious such as neoplasia. FNA samples may allow any abnormality to be interpreted correctly, allowing a more accurate treatment and prognosis to be given. Ultrasound guided techniques may also be of use therapeutically, eg for draining abscesses or cysts, or ablating tumours.

There are few contra-indications for FNA. It is generally advisable to avoid crossing body cavities and care should be taken when draining abscesses if they appear thin walled to avoid rupture of the abscess cavity. Spread of tumour cells along the needle tract is a very rare occurrence. It is possible to aspirate just about any organ in the body but care needs to be taken when aspirating suspected adrenal masses as catecholamine release can result in cardiovascular problems. The main problem with FNA samples is haemodilution when aspirating the spleen and other very vascular tissues. To try to overcome this, as fine a needle as possible should be used, eg 22–25 gauge. The needle should be inserted once or twice into the tissue with no suction applied and then removed. Applying suction is generally reserved for tissues that do not exfoliate well or are not very vascular. It is often worth trying both methods of sampling, ie passing the needle only and applying suction to increase the chance of getting a diagnostic sample. If suction is applied, a 5 ml syringe should be used and the suction should be released before removing the needle from the tissue.

As with any technique, FNA samples have their limitations as they do not allow the architecture or margins of lesions to be evaluated. In certain cases, such as liver disease, performing a trucut needle biopsy is preferred to FNA as some evaluation of the organ structure is possible. If there is a large amount of inflammation present it may not be possible to detect underlying neoplasia and there are many pitfalls with evaluating the sample, which is best performed by a specialist cytopathologist. Sampling the wrong tissue is not generally a problem with practice but it is

CPD Courses 2001

- **31st May**
Feline Day
- **9th October**
Radiology Day Course

Neurology afternoon courses:

- **17th May**
Strokes and funny turns? Understanding and investigating vestibular and cerebellar disease
- **19th July**
Working-up the weak: peripheral nerve and muscle disease

- **6th September**
Diseases of the brain: practical investigation techniques and when to refer

- **8th November**
How to deal with epileptic patients and their owners

Continuing Education Evening Series 2001

- **24th April**
Dermatology – Skin infections with Malassezia: from detection to therapy
Dr Stephen Shaw

- **8th May**
Surgical – Gastrointestinal oncology
Prue Neath

- **12th June**
Anaesthesia – Current thoughts on analgesia
Dr Jackie Brearley

- **11th Sept**
Feline – Feline hypertension: practical blood pressure assessment and management of the hypertensive patient
Dr Andy Sparkes

- **9th October**
Ophthalmology – How to get the most from your ophthalmoscope (and basic examination techniques)
Heidi Featherstone

- **13th Nov**
Oncology – Oral tumours
Sue Murphy

- **11th Dec**
Imaging – Interactive film reading – interesting cases
Ruth Dennis

Equine courses

- *Equine cardiology – 28th June* at Animal Health Trust. Due to popular demand this course is being repeated on **27th June**.

- *Equine ultrasonography day course – 29th June* at Animal Health Trust

- *Equine cardiology – 18th July* at Royal (Dick) School of Veterinary Studies, Edinburgh

Proposed Veterinary Open Day at the AHT

In response to a number of requests from veterinary practices, it was our intention to invite referring vets to attend a special open day at Lanwades Park on Sunday 24th June. Due to the ongoing situation with FMD, the decision has been taken to postpone this to a later date. It is our hope that the Open Day, designed to offer referring vets an opportunity to view our facilities and speak directly with AHT clinicians, will take place later in the year.

Mast cell tumours in dogs

Mast cell tumours are the most common cutaneous tumours seen in dogs. They have a wide range of malignancy, varying from the well differentiated tumour which has a 90% cure with surgery alone, to the poorly differentiated one where one report quotes a metastatic rate of 96% and an average survival rate after diagnosis of just 6 months.

They are more common in boxers, golden retrievers, pugs, Staffordshire bull terriers and weimeraners, although they have been reported in many breeds.

They can appear in a number of guises, often as raised hairless cutaneous lesions, but can look like lipomata or lick granulomas. They can ulcerate or bleed, may be present for years, seemingly unchanging, or they can grow rapidly, or can increase or decrease in size depending on heparin and histamine release.

These tumours can be a therapeutic nightmare. Some can be cured by control of local disease (either surgery with good margins in all 3 planes or radiotherapy if that is not feasible). The more aggressive tumours respond poorly to anti-cancer drugs and so, if they have metastasised, the prognosis is grave.

The group in the middle - the intermediate grade of tumour - presents the real dilemma because 30% of these will metastasise and the rest won't. There is, to date, no accurate way of telling one group from the other. So at the moment we treat these tumours with major surgery or expensive radiation knowing that 70% of animals have the potential to be cured but that the treatment is in vain in the remainder of cases.

In addition there are reports that breed can have an effect on prognosis, as can the site of the primary lesion. There is debate about how far 'major' surgery should go and there is a fascinating 10–14% of dogs that will get multiple mast cell tumours (each of which should be treated as if the dog has never had a lesion before).

The Trust is currently studying a group of 350 dogs diagnosed with mast cell tumours between 1997–1999 by Animal Health Trust pathologists. We will be contacting practices, or may have already contacted your practice in the recent past to ask for your help in following up these dogs. Our aim is to answer some of the questions that these tumours raise and we are particularly interested in identifying other factors that may help in deciding how aggressively to treat the middle group.

To those who have already helped - a big THANK YOU and we will send you edited highlights of the work. If you are approached as the vet of one of the animals on our study, we would be grateful for your help.

Animal Health Trust
the science behind animal welfare