

WHAT IS YOUR DIAGNOSIS?? – DISCUSSION

Osteosarcoma would obviously be very high on the DD list in this case just on history and signalment alone. Xrays and cytology do add a level of confidence to the diagnosis. For cytology however we do need to get the “right” cells to make the diagnosis. Cytology falls down when we don’t get a good cell harvest from the

centre of the lesion as often these lesions have a layer of reactive bone around them and if this is sampled it can be confusing.

What we need to see are the cells in the photos. The oval cells with the eccentric nuclei are classic osteoblasts and there are marked features of

malignancy in these cells, with the variation in cell and nuclear size and the multiple nucleoli. Two of these cells are in mitosis. The multinucleate cell is an osteoclast.

Thanks to Keith Thompson for the great photos.

Jenni Donald

FELINE GASTRIC PARASITISM – REVISITED

Further to the case report “Suspected Parasitic Gastritis in a Young Cat” that appeared in the April issue of Synapse, I received an interesting response from Dr Claudia Ugarte. The case report had described a young cat with chronic vomiting and gastric histology suggestive of a parasitic cause, similar to that described in reported cases of infection with *Ollulanis tricuspis*. Dr Ugarte had previously spent 3 years in the Feline Unit at Massey University, and had performed a survey of parasitism among feral cats which included looking at gastric mucus and stomach scrapings – in 63 animals examined, no *Ollulanis tricuspis* organisms were identified, however there were occasional cats infected with a lesser-known parasite, *Aonchotheca putorii*.

Aonchotheca putorii (previously *Capillaria putorii*) is a nematode parasite of the stomach and small intestine, found in various wildlife and occasionally domestic cats, in which it is considered to be of low pathogenicity. A case report from the Journal of the American Veterinary Medical Association (Vol. 203, No. 8, 1993) describes a 10 year old cat that presented with chronic hyperplastic gastritis associated with presence of *Aonchotheca*, as well

as a perforated gastric ulcer - although it is not clear whether the parasites were directly responsible for the perforation. In the 1974 report of a New Zealand survey of gastrointestinal parasites in cats and dogs, as mentioned in the previous Synapse case report, Capillarid nematodes were identified in the 15% of examined cats, as opposed to only 4% infected with *Ollulanis*, supporting that this may be a more common parasite. Eggs may be passed in the faeces by infected cats, although Dr Ugarte’s experience suggests that these may be sparse in number and potentially absent in small samples from infected cats.

While the clinical significance of infection with *Aonchotheca putorii*, as well as that of *Ollulanis tricuspis*, is generally considered to be minimal, gastric parasitism may be a potential consideration in cats with chronic vomiting refractory to other treatments, even if faecal examination produces no evidence of parasitic disease.

Many thanks to Dr Claudia Ugarte for responding to this article and sharing the results of her research with us.

TSE REMINDERS

The TSE programme is undergoing review to make sure it continues to serve its role in helping to demonstrate that New Zealand is free of transmissible spongiform encephalopathies. A letter from MAF will be sent to you regarding details of the changes to the programme and the new submission form. Here are a few highlights:

1. The incentive payment for sheep is raised from \$XX to \$XX provided the brain is removed before sending in to the lab.
2. Effective from Nov 1 2008, a maximum of 2 samples per farm per year may be submitted through the programme. For farms where more than 5 samples have been submitted in the past year, the farm is ineligible for further samples for 2 years from the date of the last submission. MAF may decline payment where sampling thresholds for a particular property have been met.
3. MAF may decline payment if sample handling on the part of the practitioner has been poor, rendering it unsuitable for TSE exclusion. Make sure you submit the entire brain, intact, including the obex (the most caudal part of the brainstem). The brain should be submitted in formalin or fixed in formalin for at least 2 days before being removed from the formalin and submitted in sealed plastic bag. The piece of fresh spinal cord should be extracted from the anterior part of the spinal column and submitted chilled or frozen.
4. The TSE form must be completed, with all details including a history. NZVP is happy to take cases with just the TSE submission form (you do not have to submit an NZVP submission form as well). TSE submission forms are available on the web: <http://www.biosecurity.govt.nz/files/pests/tse/forms/tse-surveillance-form-vets.pdf>



Merry Christmas
from the staff at
New Zealand Veterinary Pathology



APPOINTMENT OF A NEW CEO

Many of you will already be aware of the recent appointment of Richard Campbell as CEO of NZVP.

Richard joins us from Fort Dodge Animal Health where he had been National Manager. His entire career has been attached to New Zealand’s primary industries and includes 14 years within the animal health industry.

“This is a very exciting time to be joining NZVP with major investments underway in equipment, accreditations, software and most importantly people.” Richard notes.

“Early in 2009 we are going to have a series of major developments to launch to current and prospective clients and I can’t wait to be involved in detailing these to the New Zealand veterinary profession.”

Richard’s extensive relationships with the veterinary profession and organisations such as Massey University and AgResearch were pivotal in his appointment. He sees these contacts as very important in establishing a unique position for NZVP in the market.

“Many people will relate to the role AgVax played in the advancement of projects and the spreading of information that benefited the veterinary profession and New Zealand farming. Of course NZVP has to be profitable in it’s own right but having Massey as a part owner both allows and behoves us to take a role in such activities. Indeed the more profitable NZVP can be the more scope we have to be involved in industry good activities.

It is vital to New Zealand agriculture that this country

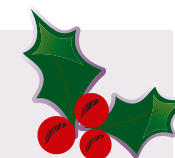
develops and maintains strategic infrastructure that has an interest in the wider industry. Having been so involved in such a position at AgVax I have a real vision for NZVP playing a role that allows this country’s main industry to continue to advance.”

A key part of Richard’s role is to increase the level of contact and customer service NZVP provides to veterinary clients.

“Look forward to renewing a lot of earlier personal relationships and making new ones as I get out into the market with what I see as an exciting and compelling story about NZVP.”



Christmas and New Year Hours



Both our Hamilton and Palmerston North laboratory will be closed for the statutory days over the Christmas & New Year break but otherwise it is business as usual.

Closed - Thur 25th & Fri 26th Dec

Open - Sat 27th Dec 8am – 11am

Open - Normal hours Mon 29th Tue 30th & Wed 31st Dec

Closed - Thur 1st & Fri 2nd Jan

Open - Sat 3rd Jan 8am – 11am

Normal hours again from Jan 5th 2009.

NEW STAFF AT NZVP

In addition to the appointment of our new CEO there have been other staff changes, so it seemed a good time to update who is in the lab and what they do.

Last time we featured Isobel Gibson, our Hamilton Anatomic Pathologist, in Synapse was in 2005 when she had completed the Taupo Ironman. She did this again in 2006, but now a new challenge has arisen!!! Isobel leaves us on maternity leave in December.

To take over from Isobel, and to work with her when she returns, we have been lucky to attract another Board certified Pathologist wanting to return home. Sandy McLachlan, graduated from Massey in 1990 and then spent 7 years in mixed practice in Hawkes Bay, Canterbury and Blenheim. He then returned to Massey and completed a

PhD. In 2002 he took up a position at the Minnesota Veterinary Diagnostic laboratory and after two years returned to the Southern Hemisphere, to Murdoch University. Sandy completed the examination of the American College of Veterinary Pathologists in Anatomic Pathology in 2007.

Also in the Pathology Group, we are very pleased to announce that Sandra Forsyth is joining us fulltime in the Palmerston North laboratory. Most of you will know Sandra from her various roles both at Massey and in wider veterinary fields and can appreciate the strengths she will bring to our Pathology team. Since NZVP started Sandra has been providing part time clinical pathology support, juggling this with her various roles at Massey, so it is exciting that she joins us full time.

HAMILTON
Richard Campbell (CEO)

Jackie O'Neill (Spec Rec)
Murielle Levesque (Accounts)
Jen Willows (IT & Administration)
Marion Callagher (Spec Rec/Admin)

Pathology
Angus Black
Sandy McLachlan
Isobel Gibson
Jenni Donald

Chemistry
Cameron Walker
Cat Murphy-Rahal
Michael Englander
Troy Burgoyne-Thomas
Kurt Von Keisenberg
Doug Napier

Haematology
Ray Lanham
Yolande Conradie
Desma Cook

Microbiology/Parasitology
Yvette McFarlane

James Connell
Louise Carter

Histology
Julie Dickeson
Tammy Waters

PALMERSTON NORTH
Anna Wheddon (Laboratory Manager)
Anna Winterburn (Spec Rec)
Jackie Massam (Spec Rec)

Pathology
Adrienne French
Sandra Forsyth
Rebecca Allan

Chemistry
Sue Pannifer
Tiresa Sale

Haematology
Janine Shaw
René Cherry
Margaret Anderson

Microbiology/Serology
Raewynne Pearson
Priscilla Yeung

Recently in Hamilton we have had Cameron Walker join us as Section leader of Chemistry. Jen Willows has taken on the company IT role and Marion Callagher in Administration/Specimen reception. The Histology section has expanded with new tissue processing facilities and the employment of Julie Dickeson.

In the Palmerston North lab, Michelle McKeany (one of the original staff who many of you would have spoken to) has left us to work for Donaghys, but still does some Saturday work. Anna Cross has become Anna Wheddon. Priscilla Yeung has joined the team sharing Microbiology and Serology with Rae, and René Cherry joins haematology. Jackie Massam will be sharing the Specimen reception/Administration role in Palmerston North.

NEW TESTS AVAILABLE AT NZVP

The acute phase protein test for serum amyloid A (SAA) is now up and running in our Hamilton lab. This test is mainly used in horses but has been used in cats overseas.

In horses it can be used on serum, looking for systemic inflammation, and on fluids.

The cost is \$XX + GST.

The SNAP cPL test for canine pancreas specific lipase is available at both sites. This test has greater sensitivity and specificity for pancreatitis than the amylase and lipase which have been available previously.

The cost is \$XX + GST.

LIVER COLLECTION FEE INCREASE

AsureQuality has recently advised us of an increase in the liver collection fees.

For collection of line/mob specific samples or data the fee is \$XX + GST per submission

For collection of animal specific samples/data the fee is \$XX + GST per submission.

Liver enzymes in cats with hyperthyroidism

Abnormal liver enzymes frequently occur in cats with hyperthyroidism with over 90% of cats exhibiting an increase in alanine amino transferase (ALT), alkaline phosphatase (ALP) or both. Elevation in enzyme activity is usually mild, generally not exceeding 400 IU/l and it is thought that liver enzyme activities greater than 500 IU/l indicate serious concurrent disease (Feldman and Nelson).

However, there are no published studies to support this and it is possible that severe or long-standing hyperthyroidism may increase liver enzyme activities to greater than 400 IU/l. Should this be the situation then a return to reference range activities would be expected with successful treatment of the disease.

To investigate this further I would like to monitor ALT and ALP in cats that have enzyme activities over 400 IU/l at the time that they are diagnosed with hyperthyroidism. If you submit feline blood for serum biochemistry and T4 analysis and liver enzyme activities are over 400 IU/l we will ask if you would be interested in taking part in the study. Subsequent analysis of ALT and ALP will be done at the time that you submit blood for T4 analysis and will be free of charge if you add "T4 AND LIVER STUDY" to the accession form.

Thanks for your help

Sandra

WHAT IS YOUR DIAGNOSIS??

FNA from a lytic lesion in the distal radius of a 5 year old Pyrenean Mountain dog.

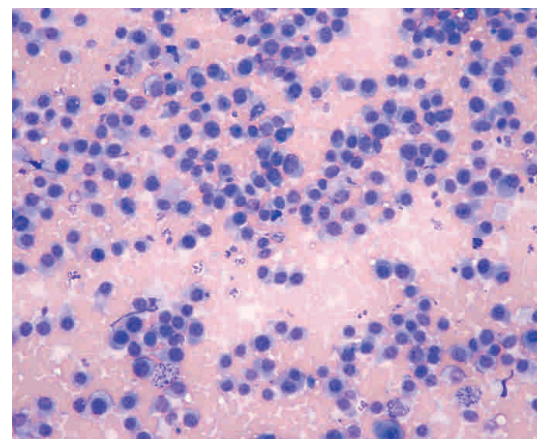


Figure 1: Low power view

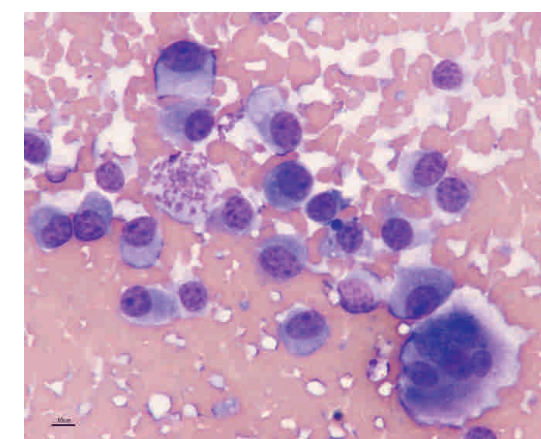


Figure 2: High power view