Vetnostics

Partners in Practice

Summer 2013

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Welcome...

to the first Vetnostics newsletter of 2013! I hope you have all had an enjoyable Festive Season and a good start to the new year.

In this edition of the newsletter, we focus on Continuing Professional Development (CPD) and our new pricelist, along with some of the regular inclusions. Dr. Sue Foster's series on 'ADRENALS: What you won't find in a textbook' is set to continue in the next newsletter.

As always, please contact me (ph 02 9005 7272 or email doug.hayward@vetnostics.com.au) if you have any requests/ideas for future newsletters or any other queries.

Updated Vetnostics pricelist and submission form

As you have no doubt noticed, we have released an updated pricelist and submission form in the last two to three months. If you have not received the pricelist and/or amended submission form yet, please contact the lab on (02) 9005 7000 and ask to speak to our client services manager (Anna Rys) or a veterinary pathologist.

Many of the profiles and tests on offer that you are used to remain the same however there are few specific amendments/additions that are worth mentioning here, namely:

- **Parathyroid hormone** assay is again available in Australia and is being performed on-site at Vetnostics. The test is currently available for canines and felines, soon to be for equines as well. The sampling requirement is a separated, frozen serum sample (serum separated and frozen within 20-30 minutes of blood collection). The assay is performed once weekly. We are able to offer ionised calcium assay on-site as well (please consult a veterinary pathologist as strict sampling requirements). Vitamin D assay will be available on-site as well in the near future.
- **Feline Thyroid Monitoring Profile** – this is a simple yet very beneficial option allowing assessment of renal function (urea and creatinine assays) at the same time as monitoring treatment for hyperthyroidism (total T4 assay). Sample requirement is a serum sample and the cost of this profile is $43.00 including GST.
- **Immunocytochemistry for lymphoma** – immunocytochemistry for T/B cell differentiation is now routinely available on aspirates submitted on glass slides (where we have already diagnosed lymphoma cytologically). This is available as an add-on and requires 2-3 well-made slides were cells are well-preserved and present in a monolayer. The cost of this panel is $79 including GST for both T-cell and B-cell markers. Further immunocytochemistry stains are available on an individual basis depending upon the case.

Of course, the above list by no means includes all the changes. Please have a look at our new pricelist and submission form and if you have any questions, please fell free to ring and chat to one of the veterinary pathologists.

What is your diagnosis?

(Answer on back page)

Please see the image here of a liver aspirate from a dog with hyperadrenocorticism. Amongst the various other changes evident on this aspirate, there are good examples of an incidental finding evident too. Can you identify what these are?

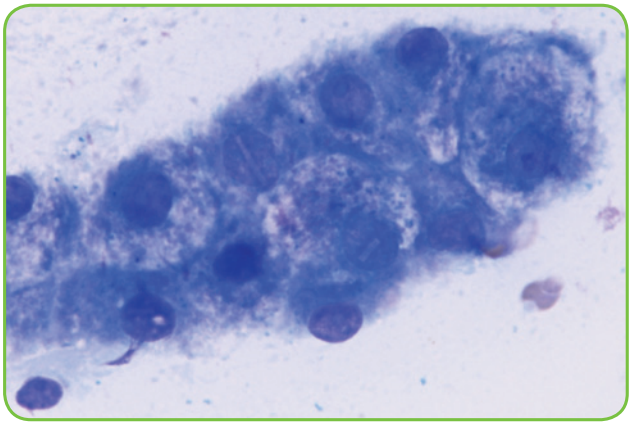

Figure 1: Diff-quik stained liver aspirate (x100 oil) >

The most difficult and frustrating histopathological diagnoses

Dr David Taylor BVSc, Dip ACVP **Veterinary pathologist**

Chronic inflammatory bowel disease

Inflammatory bowel disease has existed as a diagnosis for approximately 20 years. With the widespread availability of endoscopy it has become easy to rely on gastric and intestinal histopathology for diagnosis of patients with vomiting and diarrhoea. However, there are significant challenges when it comes to correlating gastrointestinal disease clinical activity and histologic assessment of lesion severity. Part of the problem, until recently, was the lack of a standardized approach for the histologic assessment of changes within the dog and cat stomach, small intestine and colon. Things changed for the better when the World Small Animal Veterinary Association devised a template in an attempt - albeit flawed - to rectify this deficiency. This wasn't to say that the consensus standard was useless, but there appeared to be other factors not considered at the time that confused the issue.

It is now known that the quality and number of samples submitted for evaluation significantly impacts the ability to find specific lesions. It has been shown that as the quality of tissue samples improves (i.e. going from samples just containing villus tips – inadequate, to samples including the full thickness of the mucosa - adequate), the number of samples required to find lesions significantly decreases. Evidence has also emerged that ileal biopsies collected during investigation of small bowel disease often reveal lesions not found in duodenal samples. This fact has been found to be especially important in the diagnosis of feline intestinal lymphoma. Missing lesions through failure to obtain good samples and taking biopsies from the wrong area appear to contribute to the mismatch between histology and clinical signs. Animals dying of GI disease can have more normal gut (endoscopically and histologically) than abnormal.

Another factor still to be considered is when is it appropriate to biopsy the GI tract? Recent studies have found that at least 75% of all intractable GI disease is due to dietary and bacterial interactions. If those patients that respond to therapeutic trials (e.g. dietary, antibiotic, anthelmintic and probiotic) are removed from the pool of biopsy candidates, then it may be that we are left with a group of patients in which histology is more appropriate, more helpful and more predictive. At the moment histology can reasonably be expected to differentiate certain GI diseases (e.g. mycotic enteritis from advanced lymphoma or IBD), but it is unrealistic to expect it to be able to accurately assess the severity of IBD or what therapies patients will best respond to.

Reaching a diagnosis by GI biopsy requires cooperation between us. Accurate interpretation requires an adequate number of high quality biopsies. It must also be remembered that it isn't appropriate to routinely biopsy all dogs and cats with GI disease.

And so to my final point…not all biopsies will yield a definitive diagnosis and a specific disease. In those instances, no diagnosis is better than a wrong diagnosis!

Next newsletter… getting the most from bone biopsies

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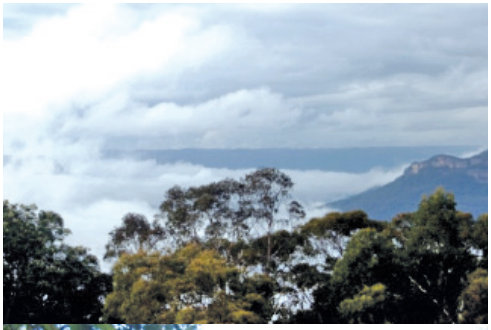
Vetnostics CPD events



Fairmont Resort, Blue Mountains

Vetnostics had the pleasure of organising CPD events in the month of February in the Blue Mountains, Central Coast (Wyoming), Newcastle, Coffs Harbour and Port Macquarie. The talks were presented by Dr. Sue Foster and were very well received – topics covered included hypercalcaemia in cats, feline renal disease, pitfalls of haematology/biochemistry testing and hyperadrenocorticism amongst many others.

Further talks are planned for the future in other areas of NSW although arrangements have not yet been finalised. Invitations to attend will follow when appropriate.

Noah's on the Beach, Newcastle

Dr Sue Foster

Earn CPD points with Vetnostics!

Vetnostics has partnered with the AVA to offer veterinarians the chance to earn structured continuing professional development points through submission of cytology and histology specimens.

The program was developed for veterinarians who have an interest in pathology and it allows them to systematically assess and improve their diagnostic accuracy in the clinical setting.

Veterinarians may earn **one CPD point for every four qualifying submissions**.

Qualification is easy. There is no need to register. Participants simply need to submit samples together with a completed specific **Vetnostics Pathology CPD Program** request form.

Veterinarians are expected to spend at least 15 minutes per specimen working through the case while completing the **Vetnostics Pathology CPD Program** request form. A detailed in-clinic cytological and gross description together with a preferred reasonably accurate diagnosis and list of other differential diagnoses (if appropriate) are required for both histologic and cytologic submissions. Participants must also include their details with every submission. AVA members should also include their AVA number to automatically accumulate VetEd points.

A separate submission form must be used for each lesion submitted, even if from the same patient. Points are earned for each lesion successfully evaluated. The regular Vetnostics histopathology and general pathology request forms **cannot** be used. Please do not use the **Vetnostics Pathology CPD Program** form for non-CPD (ie "regular") submissions.

Participants will receive direct feedback incorporated into the final pathology report. Cumulative reports will be provided to participants annually and include their total number of examined specimens, prevalence of lesion types, diagnostic accuracy for each lesion type and margin clearance (histology only). A certificate stating the total number of CPD points accumulated will be provided to participants annually.

If you want to improve your pathology skills, the level of patient care and get rewarded at the same time, submit your next histology or cytology specimen to the **Vetnostics Pathology CPD Program.**

For further information please contact Dr David Taylor (02) 90057714 or Dr Doug Hayward (02) 90057272.

What is your diagnosis answer:

The findings in question are the rectangular intranuclear crystalloid inclusions noted in three of the hepatocytes (clearly visible in two hepatocytes with one further cell involved). These are an incidental finding in canine hepatocytes identified in clinically healthy and diseased dogs of all ages and are of no known clinical significance.