

Paws claws and judder things

All of our laboratories will be CLOSED on Monday October 25 for Labour Day, but open normal hours on Saturday October 23.

Demodicosis case update

LISA HULME-MOIR

In August we brought you a case report of [localised demodicosis in a dog](#) with a hot-spot that was being concurrently treated with oclacitinib. We have subsequently been informed that the dog was actually less than 12-months-old at the time of presentation and thus represented a case of juvenile-onset demodicosis.

Juvenile demodicosis in the generalised form is strongly associated with certain breeds and is believed to have a genetic basis related to an altered or deficient immune response to the mites.¹ It is important though that juvenile cases are not assumed to be solely due to genetic predisposition and that consideration is given to whether any other underlying factors are present that could have contributed to the development of disease.²

Demodicosis is not listed as a precaution on the prescribing information for oclacitinib in

NZ but is present on the label for countries that report to the Food and Drug Administration (FDA), such as the United States. Oclacitinib is not recommended for dogs under 12-months of age.

The precaution for demodex for Apoquel® was listed as a consequence of a pre-registration overdose study performed in 4-6-month old dogs. These dogs were treated with multiple times the recommended dose twice daily, for four months. The study was terminated early because some dogs receiving 3x and 5x overdose developed adverse events related to immune suppression including generalized demodicosis.

Always consider if underlying factors could be contributing to disease development.

Because of the age restriction, in this case, oclacitinib was being used in an off label manner. The use of medications “off label”

should be carefully considered in light of any relevant literature. Contacting the drug manufacturer for advice before using medicines off label is strongly recommended and client consent should be obtained. Alternative therapies are available that are licensed for use in dogs under 12-months of age.

This case highlights the value diagnostic testing plays in the work up of a pruritic dog, and the need to rule out ectoparasites as a potential cause of itch with effective products such as one from the isoxalener family.

References:

1. O'Neill, D.G., et al., Juvenile-onset and adult-onset demodicosis in dogs in the UK: prevalence and breed associations. *J Small Anim Pract.* 61:32-41, 2020.
2. Mueller, R.S., et al., Diagnosis and treatment of demodicosis in dogs and cats. Clinical consensus guidelines of the World Association for Veterinary Dermatology. *Vet Dermatol.* 31:4-e2, 2020.

Figure 1. Demodex mites seen on skin scrapes.



What's inside?

2. Case of the month
Fixing brains in-clinic
3. TBA
Have you sprung into spring?
Locked out?
4. Consumable of the month
Contact details

Case of the month

SANDY WELTAN

This is a case I encountered in South Africa, but considering the high incidence of Johne's disease in New Zealand, I thought it would be of interest and possibly relevant here too.

Clinical history:

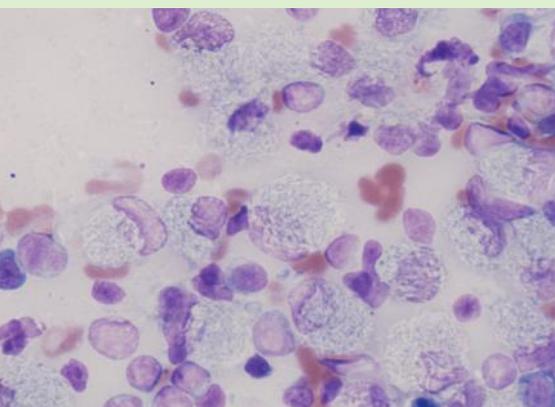
A 2-year-old, neutered, male Dachshund presented to his veterinarian with lethargy inappetence, mild pyrexia and abdominal pain. Enlarged mesenteric lymph nodes were found on abdominal ultrasound examination.

Laboratory testing:

Cytology of mesenteric lymph node, spleen and sternum revealed numerous macrophages containing vast numbers of negatively staining bacterial rods (Figure 1).

Lymph node biopsies were sent to The Centre of Excellence for Biomedical

Figure 1 (below): Cytology revealing numerous macrophages containing vast numbers of negatively staining bacterial rods.



Tuberculosis Research at Stellenbosch University in Cape Town, South Africa. Following culture, PCR and sequencing, the bacteria were identified as *Mycobacterium paratuberculosis*.

Treatment:

Treatment was started with rifampicin clarithromycin, doxycycline and supportive therapy. There was a temporary clinical response but bacteria were still demonstrated in smears from lymph nodes. Despite more aggressive therapy, his condition deteriorated and he was euthanased. A post-mortem was performed.

Post-mortem results:

Nodular lesions were found in the intestine, spleen and kidney (Figures 2 and 3). Ziehl-Neelsen staining of histopathology slides



revealed epithelioid macrophages and Langerhan's giant cells engorged with acid-fast filamentous bacteria.

Although we were unable to confirm the source of infection, the dog's history included exposure to sheep farms in the Western Cape region. This report demonstrates that MAP infection should be included as a potential cause of gastrointestinal disease in companion animals, especially those that may be exposed to premises with infected livestock.

Figures 2 and 3 (left and below): Nodular lesions found in the intestine, spleen and kidney.



Fixing brains in-clinic

ROB FAIRLEY

Did you know . . . that once fully fixed, fixed tissues can be stored for a quite a period of time without actually being kept in formalin?

Being able to store fixed tissue this way, is particularly useful for brains, and especially large brains from older calves and cows.

Receiving brains in containers where 90% of the container is occupied by the brain and

10% by formalin is not what we want! It is therefore useful to fix brains in a container with plenty of formalin at the clinic for a day or so, and once fixed the brain can be transferred to/ placed in a plastic bag without formalin, for sending to the laboratory. This saves sending large amounts of formalin in your parcel.

Ascertaining when brains (and other tissues) are fixed is subjective, but once the tissue has some firmness to it, it can generally be

considered fixed.

Note: If you continuously fix brains in the same bucket of formalin in your clinic, the formalin will eventually lose strength and the brains won't fix. Ensure it is replaced frequently.



The danger of grass awns come summer!

A 5-month-old English springer spaniel presented with pyrexia of unknown origin, in-clinic testing showing an increased WBC count and neutrophilia. He was treated with Clavulox and his CBC had returned to normal by the last day of antibiotic therapy.

He presented again a few days later with lethargy, but a normal temperature and CBC. He responded well to corticosteroids and was placed on an immunosuppressive dose of prednisone. After another few days the owner reported PU/PD and aggressive behaviour. He was readmitted later that day in a lethargic, collapsed state, and started

displaying increasingly advanced neurological signs, with several episodes over the next 24 hours, and progressively worsening seizures. The dog was euthanased on humanitarian grounds.

The body was submitted to the laboratory and a necropsy was performed. Post-mortem findings included haemorrhagic subcutaneous tissues surrounding the left eye, with dark red material within the eye (hyphaemia). Within the centre of the brain there was a soft tan area surrounding a piece of plant material - a grass awn (Figure 1).

The subcutaneous haemorrhage and hyphaemia were likely secondary to trauma from the seizures. The plant foreign material

(grass awn) with presumptive encephalitis explains the clinical signs. This finding is very uncommon, and the grass awn likely entered through the nasal passages.

Figure 1: The grass awn found in the brain on post-mortem.



Have you sprung into spring?

Last month we featured our “same as last year” trace element test pricing, and we received a great response. So in case you missed seeing it, here is a quick recap . . .

Now is the perfect time to ensure transitional and pre-mating herds are in peak condition for the spring season. Mix 'n match our trace element tests as needed to suit each farm's requirements.

Recommended spring trace elements:

- **BOH or NEFA** - indicator of negative energy balance which can negatively affect fertility.

- **Calcium, magnesium, phosphate** - key for metabolic disease prevention and fertility.
- **Selenium & copper** - deficiency can affect conception rates.
- **Vitamin B12** - low levels may indicate suboptimal nutrition.

Suggested panels:

Premating - Important analysis to assess factors that can impact the reproductive performance of the dairy herd.

- > BOH, calcium, copper, magnesium x10
- > Selenium x5

Transition panel - Important analysis for dairy herds to help support a successful transition period.

- > Calcium, magnesium, phosphate, vitamin B12, NEFA or BOH x10
- > Selenium x5

Samples required

10x serum samples (red top) from herd.

So, what are you waiting for? Get 'moving' now and take advantage of some great trace element pricing!



Locked out?

You've set yourself up with a user account for our website so you can go shopping, but you've entered the wrong password (several times) and are now locked out?

Well, you're not alone, plenty of practice staff seem to do the same thing. Can we help? No, not always.

Online customers are locked after three failed logins within a 4-hour period. You will be locked out for 1-hour (we need to do this to keep our site safe from hackers). We can't override the lock-out, so go have a lunch break or look after a client and try again later.

To avoid being locked-out again, use the “forgot password” link to reset it. Then make sure it is written down somewhere safe, click the “remember me” box or use a secure third-party software to store your passwords.



Consumable of the month

Do you order laboratory consumable items from us online or via our order form? If you need just one blood tube or swab, or enough for a herd, we've got you covered.

Our featured consumable items in September are **Liver biopsy kits** for use when taking liver biopsy samples for trace element testing.

Liver biopsy performed by a veterinarian remains Gribbles Veterinary's sample of choice for liver trace element testing. Whilst obtaining liver samples at slaughter is convenient, liver biopsy has several advantages including:

- > The veterinarian is on farm, so can assess the animals, discuss issues with the farmer, and select the animals to be sampled.
- > Accurate animal identification at the time

of sampling.

- > No extra fees from the meat works for sample collection.
- > Time from collection to analysis is typically faster with biopsy samples.
- > Clear traceability of samples from collection to reporting.*
- > Biopsies are the most convenient liver sample to handle in the laboratory.

Factors that can affect sample suitability:

- Contamination of samples with other tissue types, e.g. adipose or connective tissue
- Presence of blood clots diluting the sample
- Sample desiccation in transport
- Insufficient sample size

This is where the **Liver biopsy kit** fits in. The tubes are the perfect size for sample

transport, they prevent sample desiccation and it's easy to see if the biopsy size is appropriate.

We often receive insufficient sample for testing. If copper, selenium, B12 and zinc are all required, then 250-300mg of tissue is sufficient. [See guide below.](#)

Kit contents:

Our **FREE Liver biopsy kits** contain 50 x 4mL snap-top tubes, labels and sampling tips and help ensure your samples are perfect every time. [They can be ordered online here.](#)

So don't waste valuable time with poor samples, use our free kits and get it right the first time.

*An important factor in our Quality Management System's compliance with the international quality standard, ISO 17025.

Minimum sample size:



Optimal sample size:



Insufficient sample size:



Gribbles
VETERINARY



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Contacting Gribbles Veterinary couldn't be easier.

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