

Paws claws and judder things



March 2021

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For a bit of a laugh!

Like us on [Facebook](#) to ensure you never miss out on our latest updates or other gems like this one ...

Introducing the new kitchen Roomba: immediately cleans up anything you spill on the kitchen floor and then returns itself to it's docking station ...



Autumn is here!

For production animal veterinarians, autumn is the time to remind farmer's about the importance of trace element testing leading up to winter.

Tissue and serum sampling in the autumn or at drying off, provides an opportunity to ensure trace elements and magnesium concentrations are appropriate heading into winter, and to assess any effects of sporidesmin on the liver. Options for sample collection include collecting liver and/or blood samples on-farm, or getting liver samples collected at the slaughter plant (updated works submission forms to be sent with animals, can be found on our [website](#)).

We recommend on-farm collection of liver biopsies for trace element testing as it provides guaranteed animal selection and identification, better traceability of samples, is more cost effective for the farmer and provides more accurate results due to the controlled handling and transport of the samples. For more detailed information on liver biopsy sampling, read our [information sheet](#).

Liver biopsy performed by a veterinarian is Gribbles Veterinary's preferred sample type.

This autumn, we've made interpreting trace element results a whole lot easier with cumulative reporting and regional trends on reports.

Cumulative reporting can be used to identify seasonal trends within the same year or previous years specific to that

farm. This enables veterinarians to quickly track results (without having to find previous trace element reports), and advise on strategic supplementation. It also provides a more user friendly, visual reference for farmers that can be used to track changes over time and align supplementation with management decisions.

Regional trending enables farmers and veterinarians to at a glance see how their farm compares in relation to other farms within their region. This new graph feature can be used with farmers as a tool to highlight the importance of regular trace element testing, by showing that (potential or possible) deficiencies / toxicities are being seen in their area.

Note: Regional data is dependent on accurate identification of the species, age and location, so please supply as many details as possible on submissions so you and your farming clients can make the most of this exciting innovation.

Recommended sample size for liver copper is now 10+ samples for all species. Find full details [here](#).

Like much diagnostic testing, there is no one size fits all solution. Visit our website and see if the information we have available can help you make your testing choices. Still stuck? Our expert team of pathologists is always available to help. Call us on 0800 GRIBBLES.

Free equine ACTH testing

In conjunction with Boehringer Ingelheim Animal Health, we are very happy to be able to offer free equine ACTH testing during March and April this year.

A voucher **MUST** be downloaded from www.talkaboutlaminitis.co.nz/laminitis-tests prior to submitting your sample, and a copy of the voucher **MUST** accompany your sample. No voucher, no free testing!

For more information on the sampling requirements for ACTH testing, please visit our website [here](http://www.talkaboutlaminitis.co.nz). Alternatively, feel free to contact Boehringer Ingelheim on 0800 800 822 to learn more about this exciting offer and how you can manage PPID using PRASCEND®.



Something a bit fishy?

For all of our aquatic industry customers and veterinarians, we are very pleased to advise that we now have a new, dedicated, aquatic diagnostic submission form available.

This form pulls together all of our veterinary diagnostic services for the aquaculture industry, making it super easy to find the testing options available.

The form is editable and can be downloaded free-of-charge from our [website](http://www.gribbles.co.nz).

Walking on broken glass

We have recently received quite a few cytology cases where the glass slides have broken or cracked in transit, making them unsuitable for analysis. Most cases with broken slides have been sent in a courier bag without suitable packaging. The ideal way to transport glass slides is in a [reusable plastic slide holder](#), then inside a Bio-bottle shipping container—please refer to our [February article](#) covering how to package a sample properly.



If you are caught short without a slide holder for transport, please ensure the glass slides are well protected inside bubble-wrap, sturdy paper or cardboard to keep them safe.

Case of the month

CATHY HARVEY

Clinical history:

A four-year-old spayed female Staffordshire bull terrier presented after a one-week history of anorexia with vomiting and diarrhoea. She had been treated with antibiotics, anti-emetics, antacids and antiulcer medications. When the dog deteriorated (white gums and lethargic) further work-up was consented to by the owner.

On abdominal ultrasound, there was free fluid in the abdomen around a small intestinal lesion that was highly suspicious for a mass. The wall was severely thickened (measuring up to 1cm) and irregular. Mesenteric lymph nodes were all enlarged and hypoechoic. The rest of the abdominal lymph nodes were also enlarged. Stomach was filled with food. The remainder of the small intestines mildly

thickened and hyperechoic omentum, early peritonitis. Liver, kidneys and spleen normal size and echogenicity. On an exploratory laparotomy a large thickened area of the jejunum was found. The mesenteric lymph node was enlarged. An end-to-end anastomosis was performed.

Diagnostic samples:

The mass tissue submitted to the laboratory for histopathology was a 240mm long section of intestine, and 20mm firm mass in the adjacent mesentery. See Figures 1 and 2.

Histopathology findings:

On histopathology the mucosa was ulcerated. Throughout the remainder of the wall of the intestine, and extending into the mesentery, there were multifocal to coalescing areas of numerous macrophages (epithelioid and multinucleate) and neutrophils, with areas of necrosis.

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Figure 1 (above): Intestinal mass cut in half

Figure 2 (below): Cross-section of intestinal mass with extension into mesentery.



Please help!

“I think my dog was poisoned”

HANIA KLOBUKOWSKA

We frequently get phone calls from veterinarians concerned about patients that have possibly been exposed to toxic substances, or who have unfortunately died under a guise of a poisoning suspicion.

Popular crime and forensic programs on television give the impression that testing for toxins in these cases is easy, quick and inexpensive – this couldn't be further from the truth in most cases. Managing client and owner expectations is important, and below are some key points we recommend you being aware of when dealing with a potential poison scenario:

What toxin do you think is involved?

A thorough clinical history to determine potential environmental exposure is vital, as non-targeted toxin testing is like searching for a needle in a haystack - we don't have 'panels' or 'suites' that cover all possibilities. Toxin nomination is important – if you think rat-bait was the culprit, then we can specifically target that compound.

Toxin testing is for the most part intrinsically expensive.

Although we can test for a small number of compounds in-house at affordable prices (because of high throughput e.g. heavy

metals), most are outsourced to external laboratories. Availability of testing options for all toxins is not always guaranteed.

Do we have the right substrate to test and will we get an accurate result?

For example, false-negatives can occur in cases where the toxin has been eliminated from the animal, but clinical signs remain. Chronic exposure may be even more challenging, as levels of a toxin may not in fact be significantly elevated, e.g. chronic zinc poisoning in cattle can produce symptoms of ill-thrift without corresponding significant elevations in blood zinc levels.

Could it ... not be poisoning at all?

Some diseases and deaths happen quickly, which may be alarming to the owners, however, consideration should be given to organic diseases that may present in a similar fashion e.g. gastrointestinal accidents (GDV, bloat), metabolic diseases, septicaemias, and cardiomyopathies.

Below are some of the more common toxicities that can be encountered in small and large animal practice and which we have the means to investigate further:

- Heavy metals, including lead, copper, zinc, arsenic
- Phenobarbitone
- Nitrate
- Fluoroacetate (1080)
- Rodenticides (coumarin and indandione family)
- Ionophores (e.g. monensin)

- Algal toxins (in water)

Furthermore, routine biochemistry and blood work can help rule in/out a poisoning suspicion e.g. a prolonged PT time in a dog suspected of ingesting rat bait is generally sufficient for a diagnosis. Histology on a complete set of tissues in a dead animal is also important, as not only can you rule in/out other organic disease that may have contributed to death, but some toxicities have characteristic histological findings e.g. Paraquat (herbicide) and ethylene glycol toxicity.

If you suspect a poisoning and need assistance then it is recommended you call and speak with one of our pathologists about it investigating further and to discuss what may be available to help you get to the bottom of these cases.



VetAlert! ..or not?

Gribbles Veterinary offers veterinary clinic staff the option of requesting notification by text message when their urgent laboratory results are complete.



The VetAlert service is provided free of charge and is particularly useful to large animal veterinarians working in the field, with little or no access to e-mail, allowing them to contact the clinic or laboratory to receive their results verbally as soon as they are finalised.

Recipients will be advised to check eResults for their urgent report or a simple normal or high (we are limited to 160 characters so can't supply full results). This enables veterinarians to make decisions about urgent cases which may otherwise have had to wait until you return to the clinic in person.

In order for you to be able to easily request this service, a VetAlert check box is included on all of our submission forms. Used

together with our wonderful online results service, eResults, you have complete access to all your results the minute they become available, no matter where you are.

However, we often strike issues with illegible mobile phone numbers, and end up sending the alerts to unsuspecting strangers! So in order for you to make the most of this fabulous add-on service from Gribbles Veterinary, please always ensure your mobile phone number written on the submission form is **clear and easy to read**. We recommend inserting some breaks in your mobile number to make it easier to read e.g. 027 123 4567 rather than 0271234567.

Like the sound of free blood tests?

We are updating the feline and canine reference intervals for our new state-of-the-art haematology analysers. In addition, we are working on reference intervals for new assays in development and new methods for existing assays.

Thank you to everyone who has already submitted samples for this study, but in order to achieve these goals, we still need more samples. So far we have received samples from 38 dogs and 19 cats. Ideally, we need approximately 100 samples from both cats and dogs to ensure we have a statistically significant population number.

A number of samples received to date have been lipaemic, which are unfortunately unsuitable to be included in the study due to the adverse effect of lipaemia on the red blood cell parameters. Please ensure animals are fasted prior to taking samples, so the results obtained can be included in the data set.

What we require:

1x EDTA blood and 1x serum (ideally a full 3mL serum tube) from each healthy individual. EDTA samples must be filled to the correct level in the tube.

What you get in return:

A CBC and biochemistry screen will be provided as a baseline minimum database

for your healthy patient.

Criteria for inclusion:

- The animals must be healthy (e.g. staff pet, in for routine check-up, vaccination or desexing). There should be no history of even vague abnormal clinical signs.
- Not on any medication and no history of vaccination within the last 2 weeks.
- Animal to be **fasted** prior to taking blood.
- Age range: 12 months to 10 years.
- No pregnant animals.
- Not from an SPCA or pound (full clinical history must be known).
- No prior history of azotaemia or previous renal injury/disease.
- No sighthounds please.

How to participate:

If you're able to provide us with samples for these studies, and can meet all the requirements listed above, please quote the appropriate test code below on your submission form along with a brief reason why the animal presented in clinic. Results will be issued to you in the usual format.

CATS – REFCAT2020

DOGS – REFDOG2020

We thank you in advance for your support. If you have any questions regarding this study, please contact your local laboratory – 0800 GRIBBLES.



Facial eczema portal update

We've had an outstanding response to our new online portal for your local facial eczema spore counts—thank you to everyone who contributes. So if you're using it, spread the word, and if you're not, what are you waiting for?

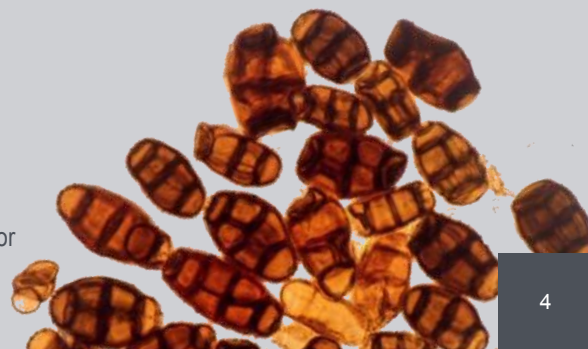
You can submit your spore counts online, and see results in real-time. If you're only

interested in viewing the reports, no user account is required. [Visit our website for more information](#) and links to the portal as well as instructions for its use.

Postcodes are now required for all sampling locations, but if you feel your spore counts are being grouped into the wrong district, please contact jo.archibald@gribbles.co.nz and we'll get them sorted out for you. Some Northland districts were recently modified after very helpful feedback from clients (based on an agricultural / microclimate perspective). So let's make sure, it is right for

everyone.

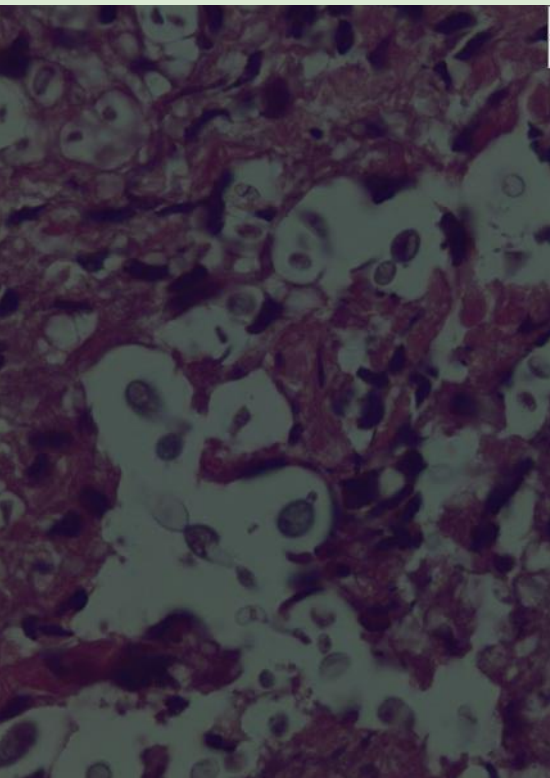
If you have any questions about the portal or your data, please just get in touch via email faciale.monitor@gribbles.co.nz or call us on 0800 GRIBBLES.



Case of the month

CONTINUED FROM PAGE 2.

In the centres of the areas of necrosis and within the cytoplasm of the macrophages there were numerous PAS positive narrow based budding yeasts, and rare hyphae / pseudohyphae (see Figure 3). The fungi and inflammation did not extend to the proximal and distal margins of the intestinal tissue, but did extend to the serosal and mesenteric margins.



Histopathological diagnosis:

Pyogranulomatous transmural enteritis and peritonitis with intralesional yeasts.

Discussion:

Enteric fungal infections, especially with yeasts, are uncommon. Definitive diagnosis would require culture or PCR. DDX *Candida* spp. or possibly *Cryptococcus* spp.

Heavy fungal challenge, disruption of the normal flora, a primary local lesion, and/or lowered host resistance are probably required for establishment of mycotic disease in the gut. Spores are probably normally carried across the mucosa by macrophages, and only if host immunity is compromised in some way will they establish in the deeper tissues or become disseminated. Lesions occur anywhere in the gastrointestinal tract, including the fore stomachs of ruminants, and in the mesenteric lymph nodes. Clinical signs may be related to the location of the lesions, be non-specific, or entirely absent. Two primary types of lesions are produced: necrosis and haemorrhage or granulomatous inflammation. The most common organisms associated with alimentary tract mycoses are Zygomycetes (*Mucor* sp., *Mortierella* sp.), and rarely *Aspergillus* spp., *Candida* spp., and *Histoplasma capsulatum*.

Candida has been reported to uncommonly cause intestinal lesions such as these – usually in immunocompromised animals, or that have had previous antibiotics / GIT

surgery. *Candida* spp. are commensals normally inhabiting the alimentary, upper respiratory, and lower urogenital tracts of mammals. They are opportunistic pathogens that can invade and colonise tissue when the patient is immune-compromised or there is disruption of the mucosal barrier.

Cryptococcus is an environmental yeast that (especially if immunocompromised due to neoplasia, diabetes mellitus, steroids) can cause infection, usually of the skin, respiratory tract, central nervous system and eyes. The yeasts are inhaled or inoculated from the environment (soil or bird droppings - especially pigeons, or Eucalyptus trees). Cryptococcosis is a zoonotic disease.

Many thanks to Dr Eckhard Stalman from Veterinary Associates Takanini for submitting this interesting case. The dog is doing well post-surgery.

References:

- Bradford K, Meinkoth J, McKeirnen K, Love B. *Candida* peritonitis in dogs: report of 5 cases. *Veterinary Clinical Pathology* 42:227-233, 2013.
- Uzal FA, Plattner BL, Hostetter JM. Alimentary System—Mycotic diseases of the gastrointestinal tract. In: Jubb, Kennedy and Palmer (eds). *Pathology of Domestic Animals* 6th Edn. Pp 201-202. Elsevier Inc. USA, 2015.

Figure 3. Intestine with yeasts. H&E stain, 1000x



Gribbles
VETERINARY



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