

# Paws claws and judder things



April 2021



## ANZAC day closures

All of our laboratories will be closed on Monday 26 April for ANZAC day.

All laboratories will be open as usual on Saturday 24 April, and normal business hours will resume on Tuesday April 27.



## What's inside?

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## Reference interval study update

Thank you to everyone who has already submitted samples for this study! These studies take a lot of time and effort to accomplish, but once complete will help provide you with valuable information benefitting the health of your clients.

If you would like to help by providing samples for this study, this is what you need to know.

### What we require:

1x EDTA and 1x red-top tube (ideally a full 3mL red-top 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 in the reference interval:

- 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.
- Not pregnant.
- Not from an SPCA or pound (i.e. the animals need to have a known clinical history).
- No prior history of azotaemia or previous renal injury/disease.

- Age range: 12 months to 10 years.
- Animals to be **fasted** prior to taking blood.
- No sighthounds please.

### Important notes:

- Please ensure animals are fasted prior to taking samples. 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.
- It is essential that the sample type and animal details comply with all the criteria above. Please do not send samples from animals that fall outside these parameters (they cannot be included in this study), and do not submit samples other than EDTA or red top tube. If the animal/samples do not comply, no free testing will be possible.
- Please only send blood samples from each animal once. We cannot use data from retesting the same animal in this study.

### How you 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.

**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 on 0800 GRIBBLES.

## Don't let anyone miss out!

Do you have new veterinarians or nursing staff at your clinic? Make sure they are signed up to receive a copy of our newsletter and other laboratory updates.

You know we don't send out a lot of spammy emails, just the bits you need to know. So forward them a copy of this email and tell them to click the button below to join in the fun. Alternatively, there is a link at the bottom of our website homepage PLUS a link on our Facebook page.

[Sign up for our newsletter here!](#)

## We've got your aquatic testing covered

Gribbles Veterinary now has a wide range of salmon tests available across haematology, biochemistry, coagulation, serology, endocrinology and histology.

Over the past four years, Gribbles Veterinary has been working with Cawthron Institute researchers on a project to determine the normal biochemistry and haematology reference intervals for NZ Chinook Salmon. This diagnostic work was conducted at our Christchurch laboratory by our highly skilled core laboratory team, led by Robyn Winters.

Now that this project has been published, salmonid vets and producers can use these

reference intervals to compare against their moribund fish diagnostics. Gribbles Veterinary has a number of Pathologists with a special interest in fish across both anatomic pathology and clinical pathology. The Gribbles Christchurch team have subsequently started applying their aquatic diagnostic skills to a wider range of commercial aquaculture species.

The tests used in the study are all available on our [new aquatic submission form](#).

We love to help and are always delighted to teach sample preparation skills and making the perfect blood smear. So if you would like a visit from us in the field please just contact us at [Christchurch.vetlab@gribbles.co.nz](mailto:Christchurch.vetlab@gribbles.co.nz).

Reference: Casanovas P et al. Comparative assessment of blood biochemistry and haematology normal ranges between Chinook salmon (*Oncorhynchus tshawytscha*) from seawater and freshwater farms. *Aquaculture*, 537: 2021. <https://doi.org/10.1016/j.aquaculture.2021.736464>

## Case of the month

### MICHAEL HARDCASTLE

#### Clinical history:

A sixteen-year-old Domestic Short Hair cat presented with a two-week history of severely crusted, erythematous and painful skin around the nail beds of both forelimbs and the caudolateral aspects of the pinnae. (Figures 1-3). The cat's skin was otherwise unremarkable, and the only other clinical

findings were lean body condition and pyrexia. There was no prior history of topical or systemic medication.

In-house haematology and biochemistry testing reportedly showed a moderate neutrophilia and a moderate increase of globulins. In-house cytology of the crusts showed neutrophils and individualised keratinocytes (Figure 4).

Skin biopsies were collected from the left and right fore dew claws and the left and right pinnal margins.

#### Laboratory findings:

On histopathology these showed surface crusting and ruptured subcorneal pustules, with many variably necrotic neutrophils and acantholytic cells; these sometimes detached from the epidermis in a manner resembling a "crumbling brick wall". (Figure 5). The dermis contained neutrophils, mast cells, lymphocytes and plasma cells within variable oedema and fibrosis. Special stains showed scattered cocci in crusts, and no fungi.

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Figures 1-3 (below): Severely crusted, erythematous and painful skin around the caudolateral aspects of the pinnae and the nail beds of both forelimbs.



## Autumn essentials

Liver and serum sampling in the autumn, or at drying off, provides an opportunity to ensure herd trace element levels are appropriate heading into winter, and this autumn, we are offering **promotional pricing** for essential autumn trace elements.

The testing options below focus on the essential autumn trace elements - copper

and selenium - but you can add to these or change them using other trace element tests available (refer to our submission form and price book for details). **Indicate clearly** in the space provided on the submission form how many of each test you would like performed.

**Reminder:** Due to the variability in liver coppers, we recommend **10+ liver samples** are taken from the herd.

Detailed trace element information can be

found in the [MineralCheck package information](#)

available in the 'Veterinarian info' section of our website.

Speak to your Territory Manager or local Gribbles laboratory to find out more about this **great deal** and ensure your autumn essentials are taken care of!



Recommended testing options	Serum selenium	Serum copper	Liver copper	Liver selenium
OPTION 1 - On-farm liver biopsies and bloods	5	-	10+	-
OPTION 2 - On-farm bloods only	5	10	-	-
OPTION 3 - Slaughter plant liver collection	-	-	10+	5



## Handle with care

### GEOFF ORBELL

Do you often have small or fragile biopsies or samples for histology that would benefit from some TLC?

We stock special cassettes with an extremely fine mesh that prevents tissue loss during processing and protects small or fragile biopsies. These are great for endoscopic biopsies, nasal biopsies, crusts from skin disease, or small biopsies where orientation is important.

The cassettes are comprised of two interlocking plastic frames - one slightly

smaller than the other - which are linked by a mesh hinge. The frames surround a polyester mesh membrane with a pore size of 220 x 220 microns which will contain the majority of small specimens received for tissue processing. The cassettes can only be closed in one direction to produce a 3.1mm cavity.

Significant artefact can occur with repeat handling of delicate tissues, therefore biopsies can be placed directly in the cassettes at the time of surgery, then straight into formalin for fixation.

When cassetted samples reach the laboratory, the cassettes are inserted directly into a standard histology cassette for

processing which prevents double handling and risk of damage to the sample.

The cassettes cost less than \$2.00 each, and have no expiry date, making them cost-effective to have on hand to maximise the preservation of small and delicate samples when required. Order yours [online](#) today!



# Case of the month

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**Diagnosis:** Pemphigus foliaceus

**Discussion:**

Skin crusting and inflammation including acantholytic cells apparently arising from subcorneal pustules, is consistent with pemphigus foliaceus, a disease characterised by immune-mediated attack on epithelial adhesion molecules. The main differential diagnosis is a severe superficial infection (by bacteria or dermatophytes), which is difficult to completely rule out without intact pustules to check for microbes, since the sterile pustules of pemphigus can be invaded by microbes once ruptured.

However, infectious acantholysis is considered rare and may be less severe than that in pemphigus.

Pemphigus foliaceus tends to be seen on the muzzle, planum nasale, perioral region, ear pinnae, nipples and distal extremities of cats. The pinnae and nail beds are the most frequently affected sites, with some cats presenting only with nail bed lesions. Sex or breed predilections have not been reported in cats. Most cats are middle-aged, although it can affect a wide age range. Methimazole and other drugs have been associated with pemphigus foliaceus-like disease as a drug reaction, and it has been associated with underlying thymoma in two cats, but in many cases of pemphigus the cause is unknown.

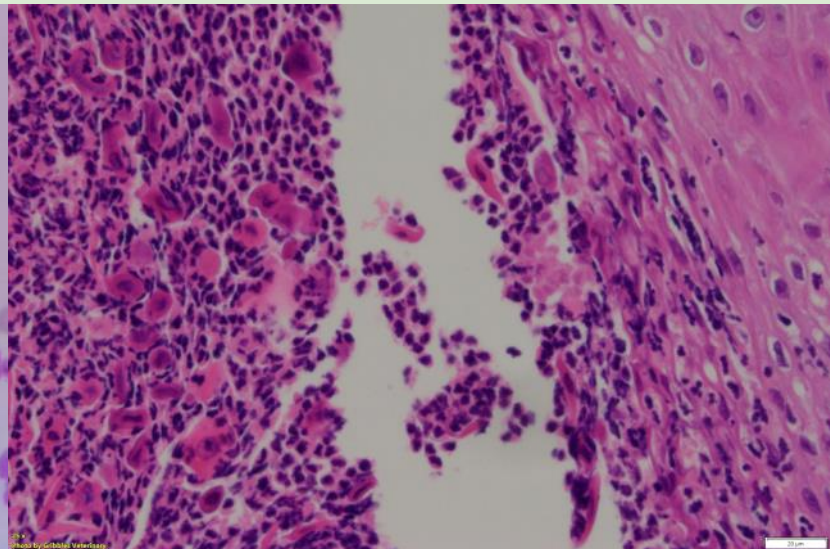
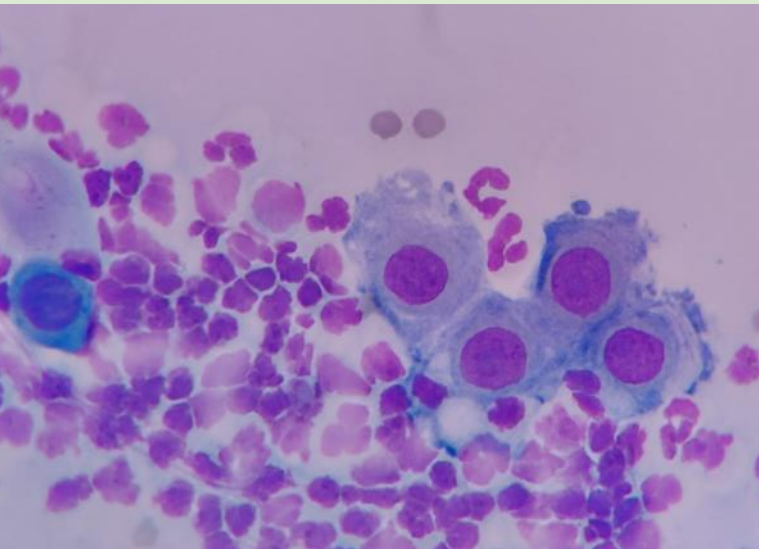
The prognosis for this disease in cats is quite good, with successful treatment options including prednisolone, chlorambucil or triamcinolone. This patient is reportedly responding very well to prednisolone.

*Many thanks to Mary-Beth Dwyer, Franklin Veterinary Services, for submitting this interesting case and providing support to write this article.*

**References:**

- Skin diseases of the Dog and Cat. 2<sup>nd</sup> edn. Pp. 13-18. Blackwell Science USA 2005.
- Muller and Kirk's Small Animal Dermatology 7<sup>th</sup> edn. Pp. 447-448 Elsevier USA 2013.
- Feline pemphigus foliaceus: original case series and a comprehensive literature review. *BMC Veterinary Research* 2019 15:22. <https://doi.org/10.1186/s12917-018-1739-y>

Figure 4 (left): In house cytology of the crusts showed neutrophils and individualised keratinocytes; Figure 5 (right): Histopathology of surface crusting and ruptured subcorneal pustules, with many variably necrotic neutrophils and acantholytic cells.



**Gribbles**  
VETERINARY



## Contact us

Contacting Gribbles Veterinary couldn't be easier.

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Last but not least, please feel free to contact your local territory manager:

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