



**Awanui
Veterinary**

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Unstained melody

Sandy Weltan

Clinical history

A 10-year-old male, neutered, Turkish Angora cat presented with a soft but uneven textured lobulated subcutaneous mass on the rump. There was a history of a cat fight. Fine needle aspirates were submitted for evaluation.

Laboratory findings:

On initial examination on low power (Figure 1) it looked like a mesenchymal tumour, but what are the negatively staining bodies?

Large numbers of fungal hyphae amidst a moderately basophilic background containing large numbers of macrophages and small numbers of non-degenerate neutrophils and lymphocytes (figure 2).

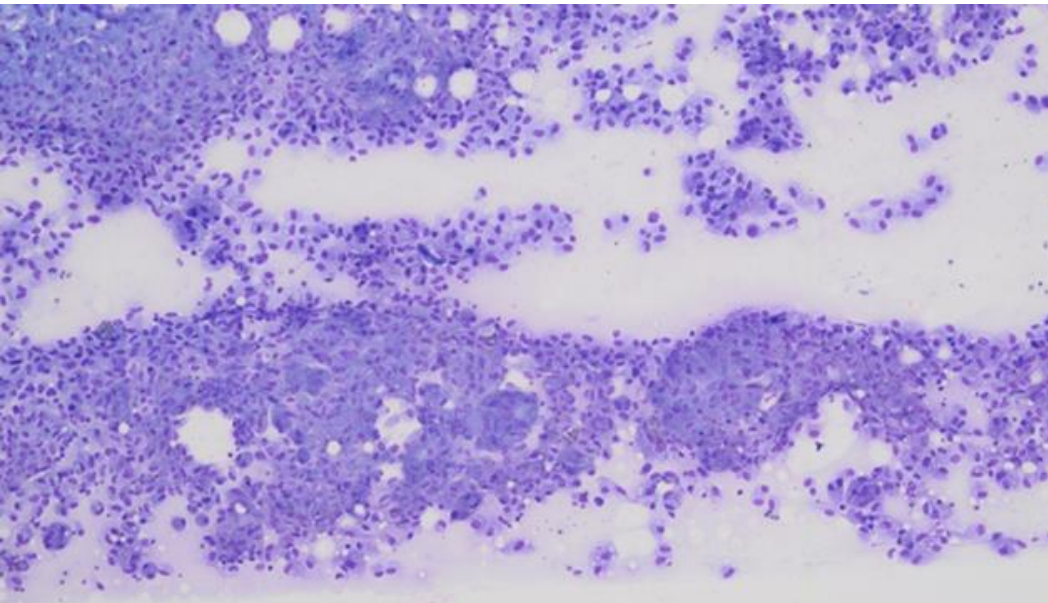
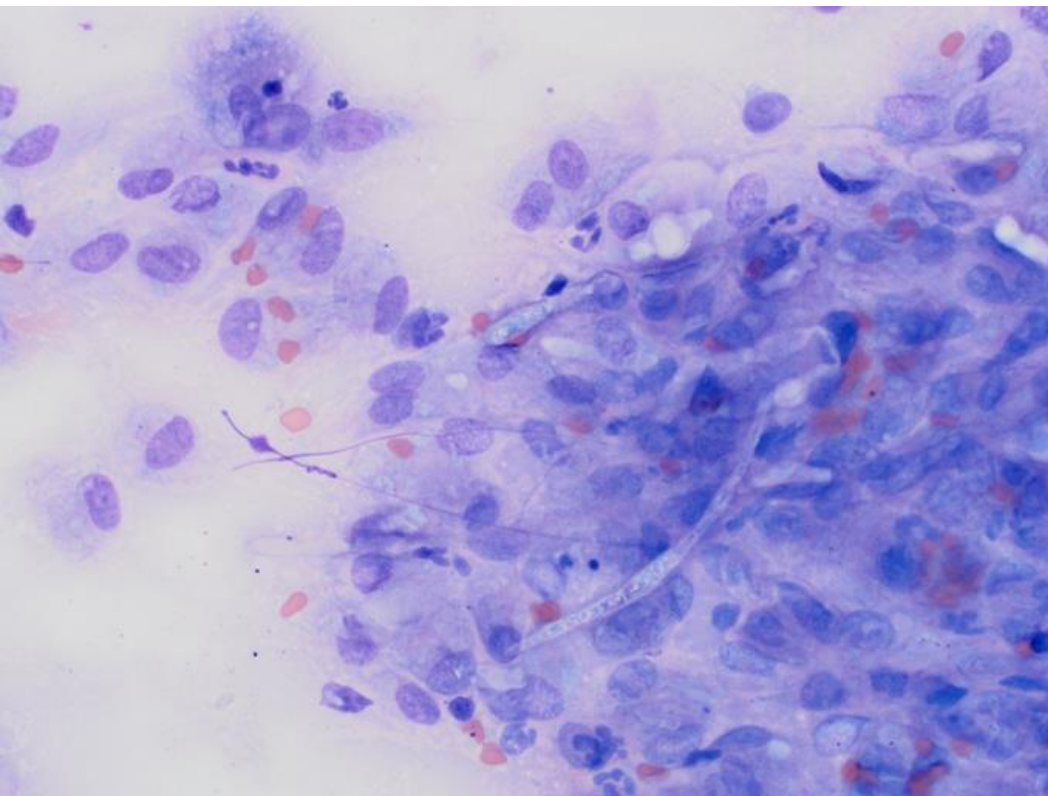


Figure 1. Photomicrograph of FNA from subcutaneous lump, low power.

Figure 2. Negatively staining fungal hyphae seen on high power along with macrophages, degenerate neutrophils and lymphocytes.



The referring veterinarian was keen to perform excision of the lesion with submission for histopathology and fungal culture but unfortunately the owner declined.

Discussion:

Localised opportunistic fungal infections may result in cutaneous or subcutaneous lesions. Phaeoerythromycosis includes fungi with melanised cell walls and include genera *Alternaria*, *Bipolaris*, *Exophiala*, *Cladophialophora*, *Cladosporium*, *Curvularia*, *Fonsecaea*, *Muyocopron*, and *Phialophora*, among others.

They present as nodular or ulcerated lesions in areas in contact with soil, for example nose and digits. In this case there was a history of a cat fight which would have provided a portal of entry. The pigmentation is not always obvious.

Halohyphomycosis includes a collection of ubiquitous saprophytes with hyaline cell walls, such as *Acremonium*, *Chrysosporium*, *Fusarium*, *Geomyces*, *Lomentospora*, *Oxyporus*, *Paecilomyces*, *Penicillium*, *Scedosporium*, *Rasamsonia*, and *Talaromyces* spp., among others.

Halohyphomycosis tends to occur more commonly in dogs than in cats and often causes systemic disease.

References:

- Barrs VR et al. Invasive Fungal Infections and Oomycoses in Cats: 1. Diagnostic approach. *J Feline Med Surg*. 26:1098612X231219696, 2024.
- Dedeaux A et al. Opportunistic Fungal Infections in Small Animals. *J Am Anim Hosp Assoc*. 54:327-337, 2018.
- Dehghanpir SD. Cytomorphology of Deep Mycoses in Dogs and Cats. *Vet Clin North Am Small Anim Pract*. 53:155-173, 2023.

Pathologist spotlight

We are very excited to recently have two fabulous new pathologists join our team. Let us introduce you to Wilson Karalus and Sandra Bulla.

Wilson Karalus graduated from Massey University in 2013 and spent the first three years of his career in dairy practice in Canterbury. He then moved to Portland Oregon, USA and worked as a small animal GP and ER veterinarian for four years, before returning to Massey University to complete a residency in anatomic pathology. He has since completed an MVS at Massey and plans to sit the final ACVP board examinations in August 2024.

Wilson enjoys all aspects of diagnostic pathology and is particularly interested in production animal infectious diseases, and neoplasia of any species.

Wilson lives in Palmerston North, with his wife, their two young children, and terrier cross Squid. Outside of work, you can find him in the garden with his boys, running the streets, or down at the skate park. He also loves to get outdoors and takes any opportunity he can to go camping, or snowboarding.



Sandra Bulla received her DVM from the Universidade Federal do Parana, Brazil, where she also completed a Master's degree in animal pathology.

In 2009 she moved to the USA and completed a PhD in Veterinary Medical Science as well as a Clinical Pathology residence at Mississippi State University. During that time, she had extensive experience in basic research and teaching veterinary students. She passed the ACVP board examination in 2021 and worked remotely as a Clinical

Pathologist at Companion Animal Health for 14 months. She has been working as a Clinical Pathologist for Awanui Veterinary since March 2024 and is based in Christchurch.

Sandra says she loves being a Clinical Pathologist and enjoys haematology and cytology from small animals the most.

When not at work, Sandra likes spending time with her family, her husband Camilo and their two children. They enjoy walking on the beach, scuba diving and exploring the outdoors.



What's your diagnosis?

A monthly spot quiz

Test your skills with this gross photo: The palate of a 2-week-old calf.

What's your diagnosis? *(Answer can be found on last page).*

A potential 'dermergency'

Michael Hardcastle

It has been said that "dogs never die from skin disease, but only itch forever", however there are a few dermatological conditions that are linked to serious systemic lesions. One of them is a rare syndrome seen exclusively in Miniature Schnauzers, a case of which was recently suspected at Awanui Veterinary, Auckland.

Clinical history

The patient was a 7-year-old male, neutered, Miniature Schnauzer with a history of calcium oxalate crystalluria (managed with citrate and hydrochlorothiazide) and hypertriglyceridaemia (managed with bezafibrate).

He had a three-week history of crusted, scabby lesions on the pinnae (responsive to cleaning with chlorhexidine), and then within the week before biopsy developed new crusted and ulcerative lesions around the eyes, on the bridge of the nose, on the ventral aspect of all four feet adjacent to the pads, on both elbows and on the tail tip.

The veterinarian also noted liver enzymes seemed to have increased since the skin lesions developed, with ALP 620 U/L, ALT 352 U/L, AST 81 U/L and CK 998 U/L, and the dog was intermittently pyrexemic.

Clinical images were sent (Figures 1, 2 and 3). The feet, tail, nose and elbow were biopsied.

Laboratory findings

Sections from all sites were characterised by epidermal hyperplasia or erosion to ulceration, with some areas of hyperkeratosis, variable intraepidermal oedema, and sometimes epidermal detachment from the dermis, clefting or vesiculation (Figure 4). Mixed, predominantly neutrophilic inflammation was seen alongside these changes.

Culture from two sites rendered a methicillin-resistant *Staphylococcus intermedius* group organism.

Discussion

Initial differential diagnoses included hepatocutaneous syndrome, superficial suppurative necrotic dermatitis of Miniature Schnauzers (SSND), bullous or vesicular immune-mediated diseases, or a severe pyoderma. However, the presence of liver enzyme changes suggested SSND or hepatocutaneous syndrome should be considered, and an abdominal ultrasound ruled out typical causes of the latter. Instead, gall bladder dilation and inflammation in the region of the pancreas was suspected. Biopsies and further workup were declined.

SSND is often associated with the use of a shampoo and is thought perhaps to be a type of adverse drug reaction, although no shampoo was used on the patient in this case. Affected dogs are often pyrexemic, depressed and may have heart, liver or lung lesions indicating systemic inflammation. The skin lesions start as erythematous papules or plaques, which crust or ulcerate, and are found mainly on the trunk although pinna lesions can be prominent. Some affected dogs will die.

The current patient was treated with enrofloxacin to manage the MRSI and a low dose of prednisone for anti-inflammatory effect; no heart or lung lesions had been found, but at the time of writing he still had a hepatopathy.

Acknowledgements to Silverdale Vet Hospital at Animates for this case.



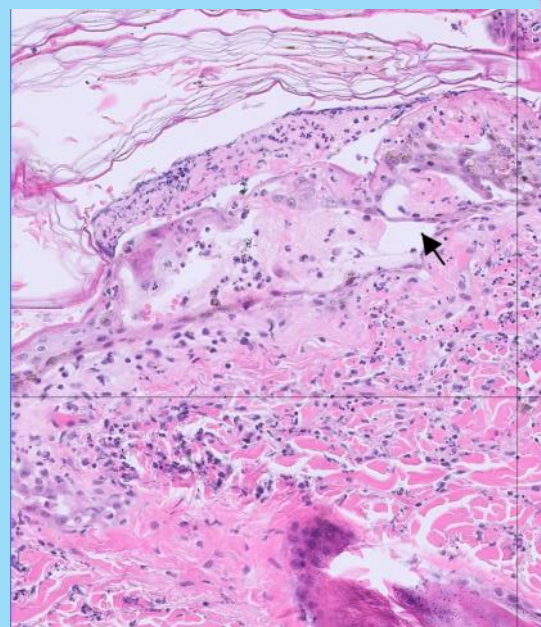
Figures 1 (above) and 2 (below): Crusty lesions on feet and tail respectively.



Figure 3 (below): Ulcerative lesion on elbow.



Figure 4 (below): H&E stained section - vesiculation (blistering) of the epidermis.



CarbonReduce certification

Climate change is already affecting the health and well being of our global community, with experts highlighting heatwaves, extreme weather events, changing patterns of infectious disease and impacts on our agricultural systems. Reducing carbon emissions is critical to ensuring the sustainability of our future. As part of our commitment to a greener healthcare sector, Awanui Group has worked together with Toitū Envirocare to obtain CarbonReduce certification across our entire group (since 2022).

You may have noticed in our email regarding our price update, that we are only printing a very limited number of price books. By using electronic versions of our price book you are helping reduce carbon emissions and our impact on the environment. Electronic documents can be updated and redistributed more easily, and information found in a matter of seconds by using the search function, without any unnecessary environmental impact. We will also be using up stock of Gribbles submission forms and courier bags before moving to Awanui branded products.

Through measuring and monitoring the Awanui network's carbon emission, the group is in a better position to make decisions that increase efficiencies. We're confident we're helping to shape a brighter, greener future. We thank you for your support.

Find out more information about the certification programmes offered by Toitū Envirocare and how they might benefit your veterinary practice [here](#).

From page 3: What's your diagnosis? *These lesions are typical of those produced by the papular stomatitis parapox virus. The lesions are not always as good as this, but the minimally raised, concentric ring appearance is characteristic (or beautiful as pathologists would say!). The lesions are mostly found as an incidental finding in calves sick or dead for another reason. Lesions may occur outside of the oral cavity on the muzzle.*

In brief

- **ANZAC day** - all of our laboratories will be closed on Thursday 25 April. We recommend you do not send samples overnight on Wednesday 24 April as they may be unsuitable for testing on receipt.
- **Boehringer Ingelheim** are running their ACTH promotion again this year.
 - > Approximately 600 vouchers will be issued to clinics by Boehringer
 - > Vouchers are valid from 1 April - 31 July 2024
 - > All submissions **MUST** be accompanied by a completed voucher
 - > No voucher = no free testing
 - > Each voucher is valid for one test from a horse not previously diagnosed with PPID.

So keep an eye out for vouchers in your clinic and read more about PPID on their website [here](#).

Contact us

- contacting Awanui Veterinary couldn't be easier.

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