

# Paws claws and piddle things

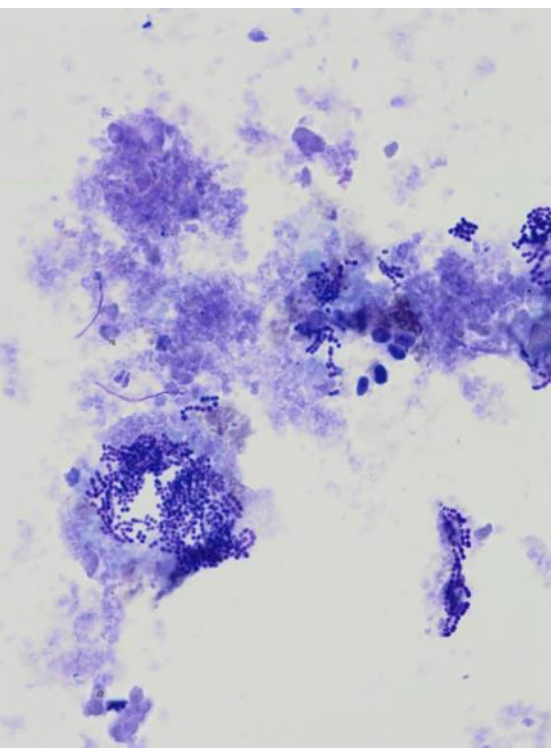
## How galling

SANDY WELTAN

The cat or dog that ain't doing right. We all see those frustrating cases, slight lethargy, intermittent vomiting, abdominal pain, and non-specific abnormalities in biochemistry or haematology. Some may present acutely ill with jaundice and elevated liver enzymes. Tests for pancreatitis may or may not be positive and ultrasound may identify abnormalities in some cases. Detection of bile sludge could be an indication for aspiration of bile (Verwey et al 2023).

Cytology is the most useful tool for detecting cholecystitis in dogs and cats (Peters et al 2016). Aspiration of bile is easily achieved

*Figure 1. Cyto-centrifuged bile from case 1. Bacteria and yeasts are present but the only organism that grew on culture was a non-haemolytic Streptococcus sp..*



with the aid of ultrasound with rare complications.

Three cases of cholecystitis are described.

### Case 1

"Joshua", a 14-year-old domestic short-haired, male cat presented with persistent jaundice but generally well with intermittent vomiting. Bloods and ultrasound did not narrow down the cause. Medication for hepatic support had no effect. On exploratory laparotomy, the gall bladder was found to be flocculent and floppy but very inflamed and vascular. A sample of bile was submitted to the laboratory (figure 1).

Bacteria and yeasts are present but the only organism that grew on culture was a non-haemolytic *Streptococcus* sp..

### Case 2

"Max" 14-year-old male Schnoodle, only eating treats or hand-fed for four to five days. No vomiting or diarrhoea, normal activity. In house biochemistry, elevation 22x

ALT, 14x ALP, three days later elevated bilirubin and cholesterol.

Urine and serum samples were submitted for leptospirosis PCR, liver and bile aspirates for cytology. The liver cytology was non-specific (figure 2). Culture yielded heavy growth of *Enterococcus caecorum*.

### Case 3

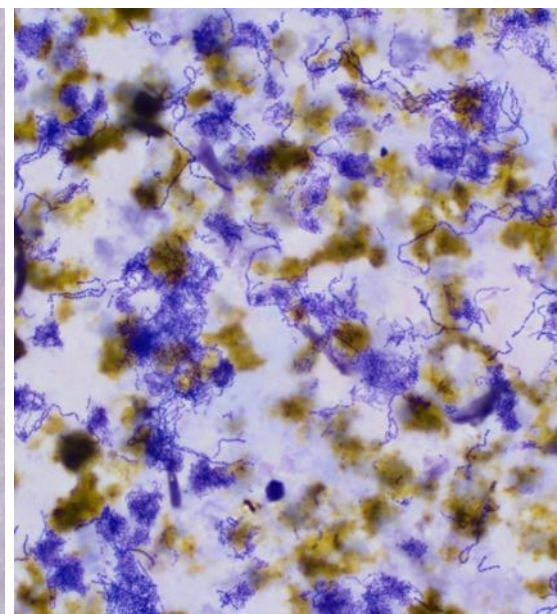
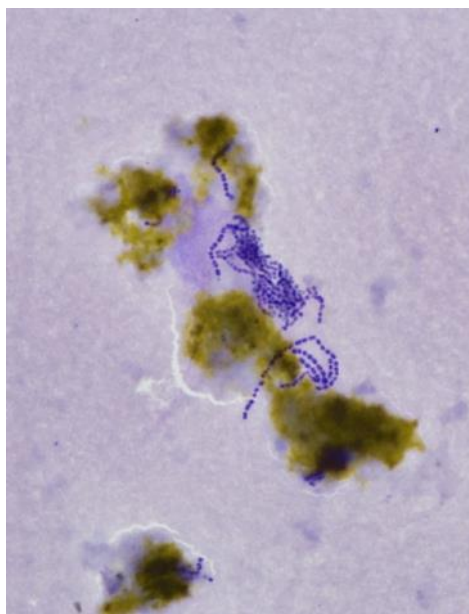
"Spunky", 13-year-old male DSH cat. Unwell, anorectic, ALT >1000, cystic lesions present in liver.

Green fluid was submitted to the laboratory. Direct and cyto-centrifuged smears were made and examined (figure 3).

Culture yielded heavy growth of *Citrobacter braakii*. Histopathology was not performed but the multiple cysts, some containing bile and some clear fluid could suggest Caroli's disease secondary to ductal plate malformation.

*Continued next page*

*Figure 2a and 2b. Bile cytology from case 2. Culture yielded heavy growth of Enterococcus caecorum.*



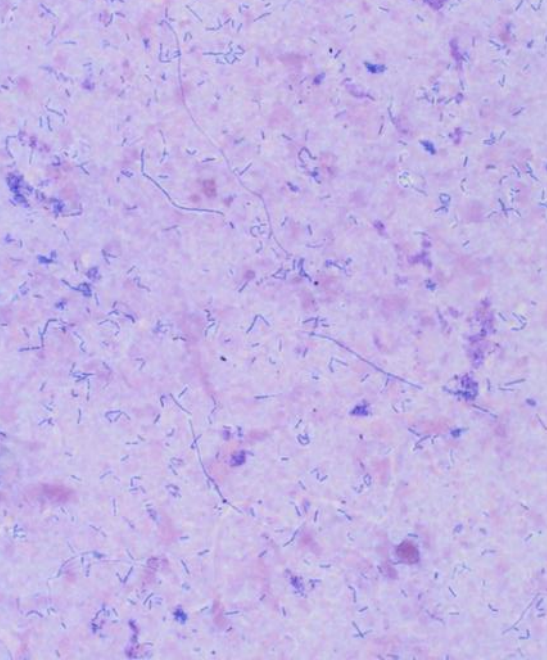


Figure 3. Green fluid from case 3. Culture yielded heavy growth of *Citrobacter braakii*.

## Discussion

Infection may also be associated with choleliths and mucocoeles. Both cytology and culture are recommended on bile for diagnosis of cholecystitis (Peters et al 2016, Pashmakova et al 2017). Small numbers of bacteria have been detected in normal dogs on cytological examination (Verwey et al 2021). Neutrophils often do not survive in the hostile environment of bile so the presence of intracellular bacteria cannot be used to confirm infection. There are also microorganisms that may be detected on cytology that may not grow on culture, notably fungi and anaerobic bacteria (Verwey et al 2023).

## References

- Pashmakova MB, Piccione J, Bishop MA, Nelson WR, Lawhon SD. Agreement between microscopic examination and bacterial culture of bile samples for detection of bactibilia in dogs and cats with hepatobiliary disease. *J Am Vet Med Assoc* 250:1007-1013. 2017.
- Peters LM, Glanemann B, Garden OA, Szladovits B. Cytological Findings of 140 Bile Samples from Dogs and Cats and Associated Clinical Pathological Data. *J Vet Intern Med* 30:123-131. 2016.
- Verwey E, Gal A, Kettner F, Botha WJ, Pazzi P. Prevalence of subclinical bactibilia in apparently healthy shelter dogs. *J Small Anim Pract* 62:948-958. 2021.
- Verwey E, Weltan SM, Whitehead Z. *Candida albicans* cholecystitis in a dog with diabetes mellitus. *Vet Rec Case Reports* 11:e630. 2023.

## Clever specimen bags

Specimen bags are cleverly designed, cheap, practical and easy to use. The main body of the bag has a plastic zipper across the top, enabling the hazardous samples to be sealed in; plus there is a separate pocket on the outside of the bag for paperwork.

**Please make sure you . . .**

- > Place samples inside the bag and then make sure the plastic zipper is fully

closed.

- > Place your completed submission form in the pocket on the outside of the bag.

Following these two steps will ensure any leakages remain inside the bag and will not pose a health risk to anyone handling the sample during transport or when received in the laboratory; and the submission form will stay clean, dry if a leakage occurs.



## You made our day!

One of our Auckland pathologists was recently trimming tissue from histology cases and came across a spleen from a Cocker Spaniel. On the submission form the veterinarian had commented “apologies about packaging” but actually, it was exceptionally well packaged!

It was encased in two sturdy plastic containers with lids that clipped down when pressed, cotton wool (not shown), adequate formalin and they had bread-loafed the splenic mass too, so it had fixed properly in

formalin.

It made a pathologists’ heart sing!

So BIG thanks to everyone who goes the extra mile and ensures their samples get the love and care they deserve. It really does make a big difference for us.

# What's your diagnosis?

REBECCA ALLAN

## Clinical history

An 11-year-old, female spayed, Shih Tzu presented at the veterinarian for a regular check-up. The owner asked for a recently discovered mass to be checked out. Palpation revealed a 12 mm, firm, subcutaneous, non-painful mass located on the left thigh. Fine needle aspiration of the mass was performed, and smears were submitted for cytology.

Figures 1 & 2 are photomicrographs of representative cytology findings.

## Questions to consider on examination of the smears

- > How would you describe the population of cells present?
- > What is the cell, indicated by the arrow in Figure 2, colloquially known as?
- > What is the most likely diagnosis?
- > What next steps would you take?

## Description of the cell population

The cellular population is mesenchymal, consisting of plump oval to spindle shaped cells in loosely arranged aggregates, with round to oval nuclei, small nucleoli, and moderate amounts of wispy tapering cytoplasm, that have indistinct cell borders and minimal to mild variation in cell and nuclear size. Also present are multinucleated cells with peripherally located nuclei.

## What is the cell in figure 2 colloquially known as?

This multinucleated cell with nuclei located at the periphery, is known as a crown cell.

## What is the most likely diagnosis?

Findings are consistent with a soft tissue sarcoma, an umbrella diagnosis that encompasses tumours of connective tissue, nerve sheath and perivascular origin. Morphology of cells, including presence of crown cells, is suggestive of a perivascular wall tumour, however confirmation of diagnosis would require histopathology.

## What next steps should be taken?

The next step would be excisional biopsy and submission for histopathology, to further classify type of tumour and to assess completeness of removal. These tumours tend to have low metastatic potential and with clean margins, local recurrence is less likely.

*Acknowledgements to Nick Deane from Paws Vets, Woodend for the case submission and supplementary information.*

Figure 1. Subcutaneous mass, left thigh.

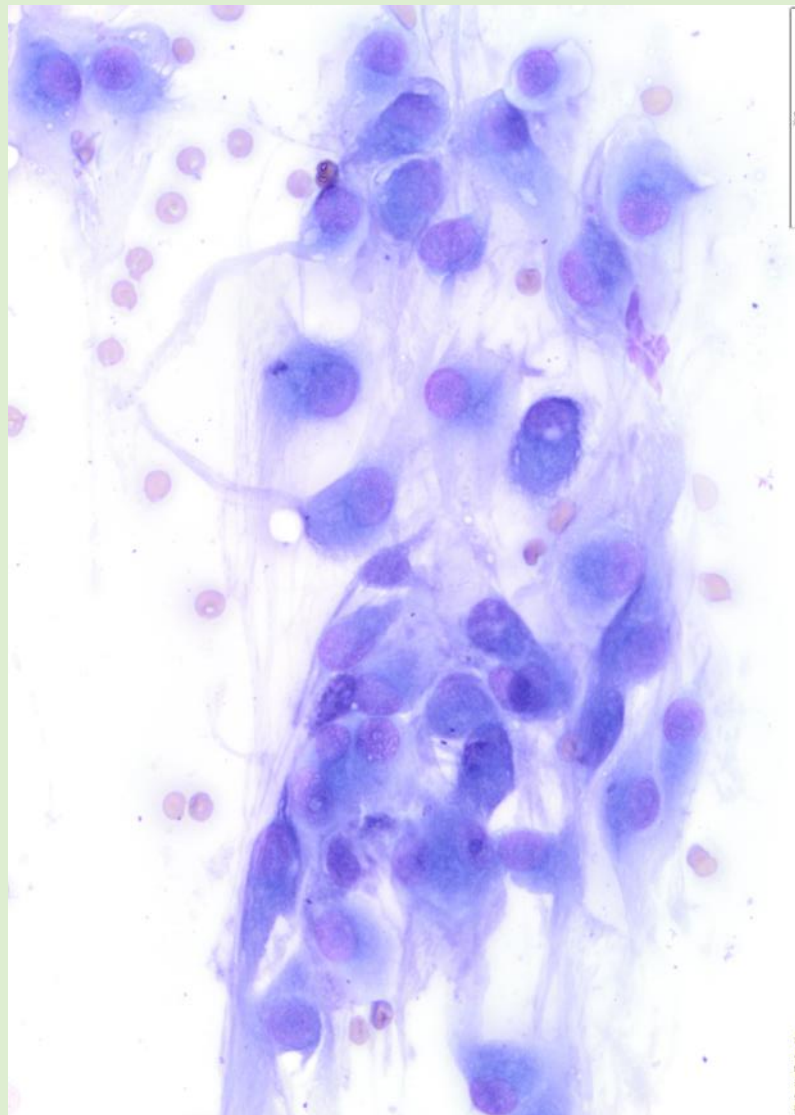
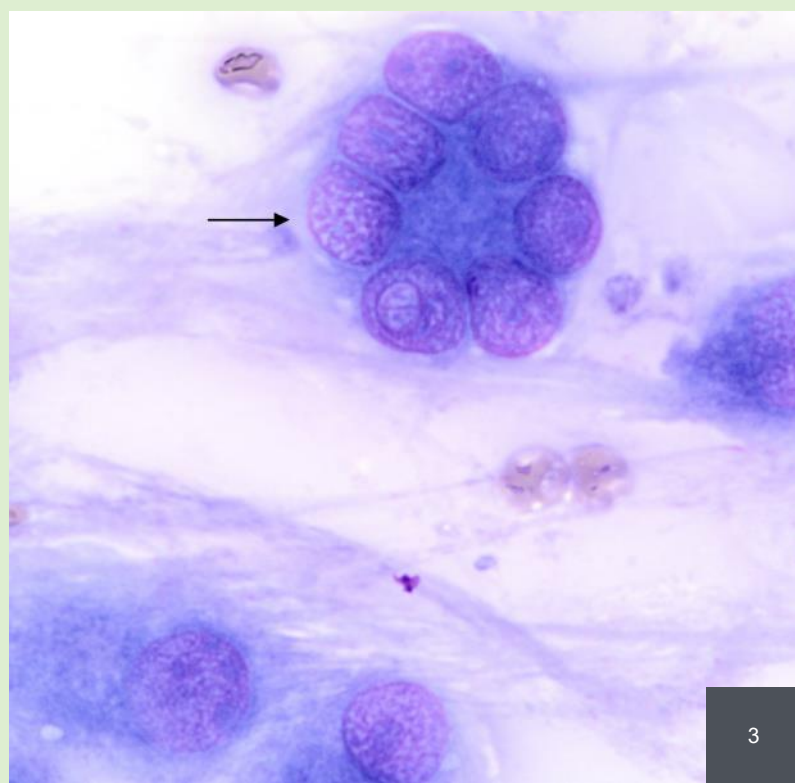


Figure 2. Subcutaneous mass, left thigh.



# The end of an era

Brent Hananeia, manager of our Dunedin laboratory, worked his last day on Thursday 28 September, 2023. Brent has left quite a footprint throughout our network and it's sadly time to bid him farewell.

Brent started his career at the Ministry of Agriculture and Fisheries (MAF) in 1978 at their Invermay Animal Health laboratory. He was part of their Chemistry team and was also involved in various research projects that were run out of the facility.

The economic environment through the 80's was rocky and with Invermay being the smallest of the MAF labs at the time, they often found themselves on the chopping block when restructures were being considered. Uncomfortable with this, Brent and the team worked hard to diversify and streamline their processes, to ensure that their laboratory was profitable and indispensable. A key to this was Brent's insight that they could differentiate themselves by offering a much faster turnaround time than was generally available from other laboratories – they began offering tests with a next-day turnaround time, compared with the week or two that customers could get elsewhere.

In 1998, a shake-up at MAF resulted in the idea being floated that the Invermay laboratory would be pared right back to just

operating as a TB testing lab. Unhappy with this, Brent rallied around the team to gauge interest in the potential for them to stand up their own laboratory. With the laboratory team on board and willing to invest as shareholders, the new entity was formed. Through some clever negotiations, MAF (AgriQuality by that point) asked to also invest as minority shareholders in the new entity. As a result, a new privately owned laboratory called Labnet Invermay was established, with Brent at the helm.

After three years of continuing to innovate with new offerings to meet their customer's needs, Brent was approached by Gribbles Veterinary (an Australian owned laboratory company, at the time) who were looking to enter the New Zealand market by acquiring local laboratories. Brent's team decided to go ahead with the purchase. Gribbles went on to acquire the Christchurch, Hamilton, Auckland, and Palmerston North AgriQuality laboratories and the current era of Gribbles began.

In recent years, Brent has worked to make sure that we remained at the forefront of animal health testing in New Zealand, whilst expanding our service into new areas. He revolutionised our trace element service using ICPMS, established a honey testing service, to name just a few ways that Brent (and his team) have pushed the company

forward on behalf of our customers.

Throughout his career, Brent has kept an eye open to new opportunities and hasn't been afraid to experiment, and sometimes fail, along the way. He has remained close to his customers, always striving to understand their requirements to provide services that they value. Throughout it all, Brent has approached the ups and downs with a smile on his face and a dad-joke at the ready. He is highly regarded within the scientific community in New Zealand and his contribution to the animal health landscape in New Zealand cannot be over-stated. To top it all, he's been a compassionate boss who is never hesitant to roll up his sleeves and get stuck in when required, a generous colleague with a wealth of experience and incredible depth of knowledge, and an all-round great human being.

The laboratory management role in Dunedin has been taken over by Denise Carian-Smith. Denise has been working in the Dunedin laboratory for over 20 years, both in animal health and analytical food testing. She has been the Quality and Technical Manager for some years and is now looking forward to the challenges managing the laboratory will bring.

We wish both Brent and Denise every success with their new adventures.



**Gribbles**  
VETERINARY



## Contact us

Contacting Gribbles Veterinary couldn't be easier.

### EMAIL

auckland.vetlab@gribbles.co.nz  
palmerston.vetlab@gribbles.co.nz  
christchurch.vetlab@gribbles.co.nz  
dunedin.vetlab@gribbles.co.nz

### PHONE

0800 474 225

### WEBSITE

[www.gribblesvets.co.nz](http://www.gribblesvets.co.nz)

### FACEBOOK

[www.facebook.com/GribblesNZ](https://www.facebook.com/GribblesNZ)

Or please feel free to contact your local territory manager:

- Rachel Howie  
Category Manager, Production animals  
[rachel.howie@gribbles.co.nz](mailto:rachel.howie@gribbles.co.nz) - 027 604 8690
- Chrissy Bray  
Category Manager, Companion animals  
[Chrissy.bray@gribbles.co.nz](mailto:Chrissy.bray@gribbles.co.nz) - 027 569 1169
- Ryan Johnson - Territory Manager  
[Ryan.johnson@gribbles.co.nz](mailto:Ryan.johnson@gribbles.co.nz) - 027 476 7714
- Dan Lacey - Territory Manager  
[Dan.lacey@gribbles.co.nz](mailto:Dan.lacey@gribbles.co.nz) - 027 476 7713
- Peta Schiessel - Territory Manager  
[Peta.schiessel@gribbles.co.nz](mailto:Peta.schiessel@gribbles.co.nz) - 027 250 1647