

Vetpath is a specialist veterinary laboratory dedicated to providing our clients with the finest laboratory diagnostic service. A team of veterinary pathologists and medical scientists with extensive experience in veterinary diagnostic pathology forms the core of the Vetpath team.

VN News

AUGUST 2016

Welcome Dr Celia Smuts

Vetpath is very pleased to welcome back Dr Celia Smuts as a part time clinical pathologist.

Celia graduated from the University of Pretoria in 1994 and has completed extensive post-graduate training including a Masters by coursework and a PhD at Murdoch University. Celia completed her clinical pathology training in a residency program at Murdoch and became board certified in 2014.

Celia has regularly visited Vetpath to review slides during her residency, and then became a part-time clinical pathologist, mainly working on Saturdays. For the past couple of years, Celia has worked as a senior lecturer in pathology at Murdoch, and has now joined Vetpath on a part-time basis.

On a sadder note, we are sorry to announce that Dr Jon Meyer has left the team at Vetpath. Jon has returned to New Zealand with his family and is enjoying the surf near his new beach side home. Please join us in thanking him for his expertise and help throughout his 5 years at Vetpath. We wish Jon well with his next adventure.

Why is fasting important?

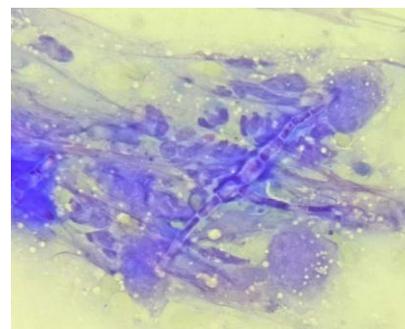
“Should the animal be fasted?” is a common question received at Vetpath.

The answer to this question is usually “Ideally, yes”, however we understand that this is not always practical in day to day veterinary medicine. Blood collection from a non-fasted patient can result in a lipaemic sample. Lipaemia can interfere with a number of assays including erythrocyte indices and concentrations of proteins, calcium, phosphorus and

electrolytes. While the sample can be lipo-cleared to counteract this interference, a fasted sample is preferred for optimal accuracy. This is particularly important when lipid concentrations (cholesterol and triglycerides) are of clinical relevance, or when measuring canine TLI.

What is your diagnosis?

A 2 year old dog presented with lameness. Radiographs showed a lytic and proliferative lesion in the tibia. A picture of aspirated material from this lesion is below. What is your diagnosis?



Answer over the page....

BOHB in cats

Ketones are produced in states of negative energy balance or decreased glucose utilization.

Beta-hydroxybutyrate (BOHB) is one of the ketones produced, and is primarily measured when there is hyperglycaemia due to diabetes mellitus or a stress response. Vetpath automatically includes a BOHB concentration in feline and canine profiles when the glucose concentration is greater than 10 mmol/L.

While ketonaemia is often present with diabetes mellitus, it can also be associated with other conditions. A recent study published in JVIM evaluated serum BOHB concentrations in cats with one of three diseases; chronic kidney disease (CKD), hyperthyroidism (HT) and hepatic lipidosis (HL).

The study found that a significantly greater percentage of cats with CKD, HT and HL had elevated serum BOHB concentrations compared with a population of healthy cats. This difference was most significant in the cats with HL, in which almost 75% of cats had BOHB concentrations above the reference interval. Approximately 20% of cats with CKD and HT also had elevated serum BOHB concentrations.

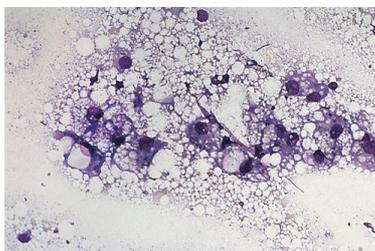


Figure: Feline hepatic lipidosis.

Another interesting finding was that serum BOHB concentration is a more sensitive indicator of ketosis than measurement of ketones on urine dipstick. Twelve of the cats with elevated serum BOHB concentration had urinalyses performed, and none of these patients were positive for urine ketones. This is likely due to urine dipsticks only detecting acetoacetate and not BOHB.

The study demonstrated that BOHB concentration can be increased in medical conditions other than diabetes mellitus. This is presumably due to a negative energy balance associated with catabolism. Serum BOHB can be easily added on to any biochemistry panel and may provide a useful assessment of catabolism in your patients.

Reference: Gorman L et al. JVIM 2016; 30:611-616.



Don't forget...

....to write a clinical history!

Assessment of laboratory data is best performed with an appropriate clinical history. This is especially important for endocrinology testing, but is also vital for cytology and histopathology samples. Providing information about your patient's condition or lesion with help our pathologists to give you a more meaningful and useful interpretation.

The diagnosis is.....

Fungal osteomyelitis.

The cytology revealed a pyogranulomatous inflammatory response with dysplastic osteoblasts and many fungal hyphae. These findings are consistent with fungal osteomyelitis. *Aspergillus terreus* was isolated on fungal culture.



NATA Accredited
Laboratory Number 14776

Vetpath Laboratory Services

RECEPTION DIRECT +61 8 9259 3600
LOCAL COURIER PICK-UPS +61 8 9259 3666
AFTER HOURS MOBILE 0418 916 436
FACSIMILE +61 8 9259 3627
EMAIL enquiries@vetpath.com.au
WEBSITE www.vetpath.com.au

VETERINARY PATHOLOGISTS

Jenny Hill BVSc (Hons) Dip ACVP
John Jardine BVSc MMedVet (Path) Dip ACVP MRCVS
Jon Meyer BVSc DVSc Dip ACVP
Jason Stayt BSc BVSc Dip ACVP
Leanne Twomey BSc BVMS (Hons) PhD Dip ACVP