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.

VNews

VETPATH LABORATORY SERVICES

NOVEMBER 2019

Serum magnesium and CKD in cats

There is an association between hypomagnesaemia and increased mortality in humans with chronic renal disease (CKD). However, the prognostic significance of plasma magnesium (Mg) in feline CKD is unknown.

Hyperphosphatemia is a common finding in cats with CKD and is associated with increased risk of death and progression of azotemia. Secondary hyperparathyroidism occurs when the body attempts to maintain a normal phosphorus concentration. This in turn leads to increased production of fibroblast growth factor 23 (FGF23), a known negative prognostic indicator in cats with CKD.

A recently published study in JVIM aimed to evaluate the potential prognostic use of serum Mg concentration in cats with IRIS stage 2 - 4 CKD. Plasma Mg was inversely associated with plasma FGF23. Hypomagnesaemia was found in 12% of cats with CKD and was independently associated with increased risk of death.

The authors suggest that Mg should be added to biochemistry panels when screening cats for kidney disease as the parameter provides useful prognostic information. Serum or plasma Mg concentration is readily available at Vetpath with minimal additional cost when added to a biochemistry panel.

Reference: van den Broek DHN et al. JVIM 2018; 1359 – 1371.

Free Webinar!

A free webinar is available for Vetpath clients on Thursday the 21st of November at 8pm AEST.

The webinar is a part of a series that is available through ASAP Laboratory. ASAP Lab and Vetpath are part of SVS Specialist Veterinary Services, which provides opportunities for continuing education throughout the year.

The webinar presenter is Dr Brett Stone, a specialist clinical pathologist from QML Vetnostics. The title of the webinar is "**Putting pathology results into perspective".**

You can register for the webinar at **vet-webinar.com** and attend using the voucher code **Pathology.** More information can be found at http://www.asaplab.com.au/CPD/ContinuingProfessionalDevelopment/Webinars2019.aspx

Coagulation screening for liver biopsies

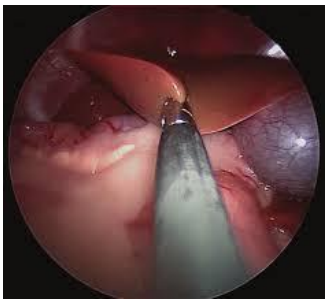
The haemostatic status of patients requiring a liver biopsy is a major concern for clinicians, and assessment of coagulation parameters can help predict whether a patient is at a higher risk of haemorrhage.

Accurate assessment of haemorrhagic risk in patients with hepatic disease can be difficult due to the dual role of the liver in synthesis and degradation of pro- and anti-coagulant proteins. However, identification of coagulation abnormalities will help predict a patient's haemorrhagic risk before biopsy.

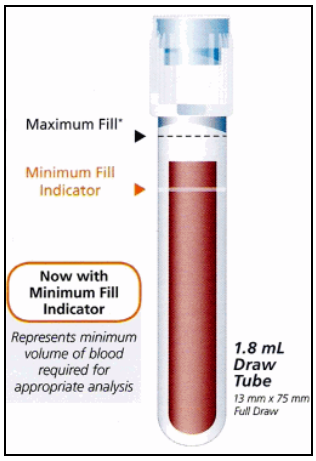
A recent ACVIM consensus statement on the diagnosis and treatment of chronic hepatitis in dogs provides some guidelines for evaluation of coagulation parameters. Dogs with chronic hepatitis are considered high risk for post-biopsy haemorrhage if they have any of the following abnormalities:

PCV	< 30%
Platelet count	< 50 x 10^9/L
PT and PTT	> 1.5 upper limit
Fibrinogen	< 1 g/L

These parameters are included in a **Coagulation Screen** performed at Vetpath. Pre-disposed breeds such as Dobermans should also be evaluated for von Willebrand's disease with a buccal mucosal bleeding time or genetic testing.



The coagulation screen is performed on EDTA (purple) and citrate (blue) samples. The EDTA is used for the CBC component of the coagulation screen and the citrated plasma is used for PT and PTT measurement. The citrate tube must be filled to the minimum fill indicator (see image below) to ensure that the correct ratio of plasma to citrate is achieved. Under filling the tube can result in artifactually prolonged coagulation times.



Reference: Webster CRL et al. JVIM 2019; 33: 1200.

Diabetic monitoring panel

Vetpath have several panels that are designed to make monitoring of certain conditions simpler and more cost effective.

Patients with diabetes mellitus are often immunosuppressed and glucosuric, leading to increased risk of urinary tract infections. Where possible, the choice of antibiotic therapy should be based on the results of urine culture and sensitivity.

The diabetic monitoring panel includes a serum **fructosamine** concentration with **glucose** and **BOHB** concentrations, as well as a **urine culture and sensitivity**. The sample requirements include a red top (serum tube), grey top (fluoride tube) and urine (preferably cystocentesis).

NATA
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