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

JULY 2015

Diagnostic testing for feline uveitis

Feline uveitis has a number of aetiologies including infection, immune-mediated disease, neoplasia and trauma. Up to 70% of cases of feline uveitis do not have an identifiable cause and are considered idiopathic.

A basic minimum systemic database including history, physical examination, CBC, biochemistry panel and urinalysis is advisable in most cases of feline uveitis. Specific testing for infectious agents can also be very useful in ruling in/out an infectious cause of feline uveitis. Successful identification of an underlying aetiology can allow for more successful treatment and more accurate prognosis in these cases.

FIV – the ELISA antibody test can screen for infection in unvaccinated cats. A positive ELISA result in a vaccinated cat should be confirmed with a FIV PCR test.

FeLV – the ELISA antigen test can screen for infection. Some cats can become aviraemic and have a negative ELISA test, however will be positive on a PCR or IFA test. The IFA can also confirm the presence of persistent infection.

FIP – Coronavirus (CoV) titre and the albumin:globulin ratio are useful screening tests for FIP. Note however, the CoV titre does not distinguish between the FIP and intestinal CoV.

Herpes virus – PCR testing is available as part of the feline respiratory panel.

Bartonella henselae – Antibody titre testing to this bacterium is available, but does not distinguish between infection and previous exposure.

Cryptococcus sp – the serum latex agglutination test screens for the presence of Cryptococcal capsule antigen.

Toxoplasma gondii – A positive serum IgM titre or a 4 x increase in serum IgG titres taken 2 – 4 weeks apart can help confirm toxoplasmosis.

Note that the Feline Seizure Panel offered at Vetpath is an economical initial screening test for patients with uveitis and includes an FP2, Cryptococcus, Toxoplasma and Coronavirus titres.

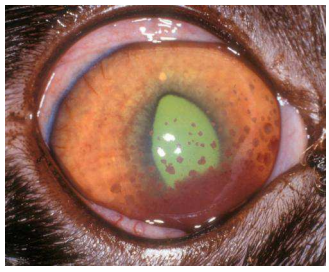

Figure: Anterior uveitis.
Source:http://www.merckvetmanual.com

Reference: Shukla AK and Pinard CL. Feline Uveitis. Compendium. September 2012.

What is *in vitro* haemolysis and how does it affect my results?

Haemolysis can be a significant interfering factor for biochemical analysis and should always be taken into consideration when interpreting laboratory data.

Haemolysis is the release of intracellular components from erythrocytes into the plasma or serum. This can occur *in vivo* or *in vitro*, and can be associated with leakage of intracellular components from leukocytes and platelets. Haemolysis is grossly visible as red discolouration of the plasma; however leakage of intracellular components can be present without visible haemolysis.

One of the primary causes of haemolysis in samples analysed at Vetpath is a delay in processing. Almost all samples must be transported to the lab and in that time, intracellular constituents can leak into the plasma. Other causes include strong aspiration of the blood sample, venipuncture with a small gauge needle or using too much pressure when placing the blood into the tubes.

Intracellular constituents can interfere with measurement of parameters due to increasing the plasma concentration of the constituent (eg AST, iron, phosphorus, potassium in some species, and total protein), or interfering with the chemical reaction used to analyse plasma/serum components (eg CK). Patients that can have pseudo-hyperkalaemia due to haemolysis include horses, pigs, camelids and some breeds of dogs (Japanese breeds eg Akitas). All dogs have a high potassium concentration in their reticulocytes and therefore haemolysis with a regenerative anaemia can cause a pseudo-hyperkalaemia.

Haemolysis will often cause a decrease in bilirubin concentration due to inhibition of the assay by haemoglobin. Vetpath will typically not report the bilirubin concentration in these cases. Serum protein electrophoresis will be affected by haemolysis due to the presence of haemoglobin-haptoglobin complexes in the 2 and β globulin areas of the electrophoretogram.

While minimizing haemolysis is recommended, this is not always possible when samples are sent from remote locations. Centrifugation of the sample and removal of the serum from the erythrocytes is the most effective method of preventing haemolysis. If this is not possible, packing the sample cool with an ice brick during shipping is helpful. Also, collection of blood samples for routine testing earlier in the week can avoid delays over the week end.

2015/2016 Product & Price List

A new Product & Price List is available for the new financial year. A copy will have been forwarded to your clinic and electronic copies are available on request.

The winner of the 2015 Client Survey prize is……..

Dr Simon Uglow from Garden Cities Veterinary Clinic.

Congratulations to Dr Uglow! You will receive your gift voucher very soon.

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