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

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New FIV test available

The introduction of vaccination for Feline Immunodeficiency Virus (FIV) has complicated routine in-house and reference laboratory serological testing.

Serological testing for FIV is based on detection of antibodies to the virus. Unfortunately, most tests are unable to distinguish between antibodies produced after vaccination, and those produced with natural infection. However, a recent Australian study published in *Comparative Immunology, Microbiology and Infectious Diseases* reveals that two commercial FIV tests are able to differentiate between vaccinated and infected cats.

Vetpath currently utilizes a microwell ELISA test to detect FIV antibodies. This testing methodology is similar to the ELISA patient side tests, with positive results occurring with both natural infection and vaccination. The recent study has determined that two commercially available tests using lateral flow immune-chromatography are able to differentiate between antibodies from infection and vaccination. The sensitivity and specificity of these tests were excellent (between 98% and 100%), and so Vetpath will now be offering one of these tests as a routine screening test for FIV infection.

Despite the excellent sensitivity and specificity of the new antibody test, some care must be taken when evaluating FIV status in kittens or patients that have only recently been exposed to the FIV virus. Kittens may retain maternally produced antibodies until 6 months of age, and a positive test should be repeated after the kitten has reached 6 months to confirm that persistent infection is present. Recent exposure to the FIV virus can also confound diagnosis. Production of antibodies can take up to 60 days to occur and therefore repeated testing should be considered in antibody negative cats that are at higher risk of infection.

Even with these considerations, the new lateral flow immunochomatography test allows practitioners to run a single test to diagnose FIV infection in an adult cat without having to confirm the result with PCR, regardless of vaccination status. In addition, the lateral flow FIV test has a much shorter turn-around time and is less expensive than PCR.

Reference: Westman ME et al, 2015 (In press) *Comparative Immunology, Microbiology and Infectious Diseases*

Effect of castration on UPCR in dogs

Assessment of a patient for proteinuria is a common part of evaluation for renal disease. There is evidence in human literature that semen contamination can cause an artifactual increase in urine protein content. But does this also occur in dogs?

Pathological proteinuria is determined by an elevated urine protein:creatinine ratio (UPCR). The IRIS guidelines indicate the significance of proteinuria as follows:

<0.2: Absence of proteinuria.
0.2 – 0.5: Borderline proteinuria.
>0.5: Proteinuria.

A recent study published in the AJVR assessed urine protein concentrations in a population of shelter dogs before and 15 days after castration. Both urinary dipstick and UPCR were evaluated. There was a significant difference between the mean UPCR of the dogs before castration (0.12) and after castration (0.08). This was particularly highlighted in the protein dipstick results where many of the uncastrated patients had a positive protein result.

However, all of the dogs in this study had a UPCR below 0.5 and therefore did not have significant proteinuria. This finding confirms that proteinuria in an uncastrated dog is a significant finding, and that semen contamination of urine does not cause an artifactual proteinuria. The study also highlights the high number of false positive results when a urinary dipstick was used as the sole evidence for proteinuria. A diagnosis of pathological proteinuria should be made using a UPCR.

Reference: Bertieri M et al. 2015 AJVR 76 (12): 1085-1088.

Rodenticide toxicity

Timing of blood testing for rodenticide toxicity is one of the most common questions asked at Vetpath.

A period of at least **48 hours** must have elapsed between potential exposure to a rodenticide (or administration of exogenous Vitamin K) and collection of blood for PT testing. Only a **PT** test is required for screening, as this test will be prolonged before PTT. Careful timing of blood collection helps to reduce the chance of missing early rodenticide toxicity before the PT has had time to become prolonged.

Pre-anaesthetic screen

Vetpath offers a number of panels that provide a cost effective way of screening patients.

The senior pet screen (with additional CBC and T4 concentration if required) is commonly used. However, did you know that Vetpath also has a **pre-anaesthetic screen**? The panel is composed of:

- HCT/PCV
- TS protein
- ALT
- ALP
- Creatinine
- Albumin
- Glucose

This combination of tests provides screening for anaemia, liver disease and azotemia, as well as glucose and albumin concentrations. EDTA and plain clotted samples are required.

NATA
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