

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 2014

Toxicology testing

Malicious intoxication is a distressing situation for both vets and pet owners. Unfortunately, sudden death is a common sequel to poisoning, but the patient may also be presented while seizing or collapsed.

Treating the clinical signs of intoxication is the primary objective after admission of the patient. However, it may also be helpful to know what samples to collect in case testing for toxins is required.

Unfortunately, an extensive "tox screen" is not available for veterinary patients. The potential toxin must be known before testing can commence. Also note that testing is very expensive and can take several weeks for results. Several options for toxin testing are available....

Recreational drug screen

Vetpath offers a urine test for common recreational drugs. The screen tests for a number of drugs including cannabis, barbiturates, opiates and amphetamines. The turnaround time is only 24 hours since the test is performed at Vetpath.

Strychnine and 1080 (fluoroacetate)

Strychnine and fluoroacetate are tested individually at a referral laboratory. Vomitus, stomach contents or baited meat can be analysed. Freeze the material for analysis before submission to Vetpath. The turnaround time of these tests can be up to 6 weeks as the samples are batch tested once a month.

Organophosphates and organochlorines

Testing for organophosphates and organochlorines is available as a panel at a referral laboratory. Stomach contents, vomitus or lithium heparin blood (10ml) can be tested. Results are available within 4 – 6 weeks.



Rodenticides

Vitamin K antagonism is almost always diagnosed with clinical history, documentation of prolonged PT and response to treatment. However, the rodenticide can be identified from stomach contents or a sample of liver (both should be frozen). Results may take up to 6 weeks due to batch testing.

Due to the length of time required for toxin testing, these tests are not helpful for diagnosing an acute intoxication. However, if an owner would like to rule out certain toxins retrospectively, these tests are available.

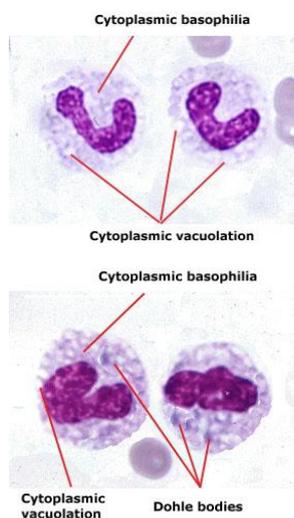
Please contact the laboratory to speak to a pathologist about what toxin testing is available.

Haematology comments

You may have noticed that the comments on our haematology reports have changed slightly in the last few weeks.

The cell comments section has traditionally included quantitative information about leukocytes such as neutrophilia and lymphopaenia. However, this information is also summarised in the pathologist's comments.

The haematology comments will now only describe cell morphology such as neutrophil toxic changes (see figures below) and reactive lymphocytes rather than commenting on the cell numbers. We believe this will save valuable time during analysis of the CBC and allow us to get your reports to you quicker.



Coomb's test

Immune-mediated haemolytic anaemia (IMHA) is a frequent cause of anaemia in dogs.

The classic haematological abnormalities seen with IMHA include a severe regenerative anaemia, an inflammatory leukogram, normal to increased protein concentration and spherocytosis. A presumptive diagnosis of IMHA can be made when these abnormalities are present.

A Coomb's test is an additional laboratory test that can be requested to help confirm the diagnosis. This test identifies antibody or complement on the surface of the patient's erythrocytes. A Coomb's reagent containing species-specific antibodies against various classes of antibodies and complement is mixed with the patient's erythrocytes. A positive test occurs when there are sufficient antibodies or complement on the erythrocytes to cause gross and micro-agglutination.

The Coomb's test does not have a high sensitivity and specificity, and thus the result must be interpreted in light of the CBC. False positive results can occur, particularly in patients with strong immune reactions to other stimuli (eg Demodex), or with some drug reactions. False negative results can also occur,

with 30 – 40% of IMHA patient's being Coomb's negative. This may be due to insufficient antibody being attached to the erythrocytes (a phenomenon that can occur with sample storage).

Vetpath currently offers a Coomb's test for **canine** patients only due to the species specific nature of the test reagent. Remember that a Coomb's test should only be performed if there is no micro-agglutination in the submitted blood sample (see figure). Auto-agglutination and a positive saline test is equivalent to a positive Coomb's test.

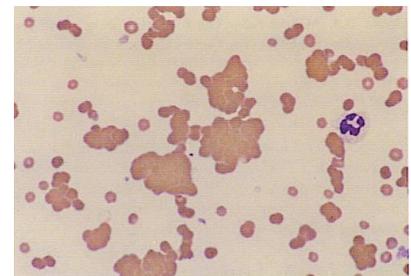


Figure: Microagglutination on a blood smear from a dog with IMHA.



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