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

SEPTEMBER 2016

DGGR lipase is now routinely used at Vetpath

The tests offered at Vetpath are continually being monitored and upgraded as new information is published in the literature.

One of our upgrades for 2016 is the inclusion of the DGGR lipase test as part of the canine biochemistry profile. This test uses a novel substrate which is more specific for pancreatic lipase than previous lipase assays. The DGGR lipase activity has been found to have excellent agreement with the Spec cPL. This agreement correlates with a higher sensitivity and specificity of DGGR lipase for diagnosis of acute pancreatitis in dogs.

If you have any questions about DGGR lipase and diagnosis of pancreatitis, please contact the laboratory to speak with a pathologist.

Reference: JVIM 2014:28:863-870.

EMS/PPID screen

Equine metabolic syndrome (EMS) and Pituitary Pars Intermedia Dysfunction (PPID) are two distinct, but clinically similar endocrine disorders affecting horses.

PPID is a disease of aged horses caused by one or more pituitary adenomas. These lesions result in excess production of ACTH and cortisol. The pathophysiology of EMS is less well understood, and it is generally associated with insulin resistance and regional adiposity in younger horses. Polyuria and laminitis can be seen in both conditions.

Vetpath offers an Equine Metabolic Screen to assist in evaluating horses with these clinical features. The screen includes measurement of endogenous ACTH, insulin and glucose concentrations. Since purchasing a new endocrinology analyzer, we can now perform the Equine Metabolic Screen on site. This has improved the turnaround time significantly with same day results being available for samples submitted before 5pm.

Blood should be collected into EDTA and plain clotted tubes for measurement of endogenous ACTH and insulin, respectively. Note that the EDTA tube should be refrigerated immediately and not separated, and submitted to the lab within 48 hours. Collection of blood into a sodium fluoride tube is also recommended if accurate glucose concentration is required.

Vetpath Laboratory Services welcomes feedback on all aspects of our service from couriers to lab results. Please feel free to contact us at 9259 3666 or email enquiries@vetpath.com.au

Avian blood samples

Collecting blood from your unusual patients can be daunting. However, following a few simple procedures can help preserve the quality of the sample.

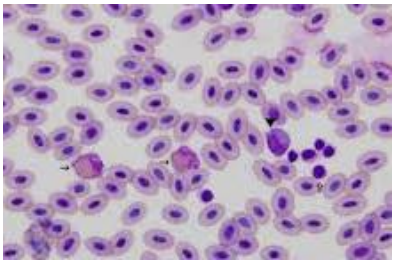
One of the main challenges of blood collection from exotic species is the small size of the sample. Approximately 10% of the blood volume (or 1% of blood weight) can be safely collected and in small birds, this may only amount to a few hundred microlitres. Sick patients should have smaller volumes collected.

Venous blood is preferred, and can be collected from the jugular or brachial veins. Take care to apply light pressure as haematomas are common after venipuncture. Blood from a clipped toenail is not ideal for analysis as the sample is diluted with tissue fluid and causes unnecessary discomfort to the bird.

Source: http://www.cliniciansbrief.com/column/procedures-pro/avian-venipuncture

Some of the blood sample should be used to make a blood smear, and the remaining sample can be placed into a lithium heparin tube. Always remember to remove the needle from the syringe before placing the blood into the tube to minimize haemolysis.

Heparinized samples have the advantage of providing whole blood for haematology and plasma for biochemical analysis. However, heparin can cause leukocyte clumping and poor cell staining. Preparing a smear from the fresh, anti-coagulated blood can reduce this artifact.



Higher volumes can be collected from larger birds such as cockatoos and galahs. EDTA is the anticoagulant of choice in these cases, with the remaining blood being placed into a plain or lithium heparin tube. A fresh smear is still important to preserve cell morphology.

After collection, blood samples should be stored in the refrigerator and processed as soon as possible. A delay in sample processing can cause excessive haemolysis and cell degeneration. Air dried blood smears are best stored at room temperature in a dry location.

Even a small amount of blood can provide helpful information. Minimal blood is needed for a spun PCV, and a fresh blood smear can be used for an estimated WBC count and assessment of cell morphology. The rest of the blood can be used for biochemical analysis. Prioritization of relevant biochemical tests is important to make the most of the small amount of blood available. If a full panel is not possible, a selection of tests such as AST, serum bile acids and uric acid will provide information on the liver and kidneys. Other useful parameters in birds include CK, protein concentrations, cholesterol, glucose and electrolytes.

Please call the lab to speak with a pathologist if you are unsure how to handle and store avian blood samples, or need help with which tests to select.

Reference: Thrall, M. *Veterinary Hematology and Clinical Chemistry.* 2004.

NATA
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