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 2014

Synacthen shortage

The ACTH stimulation test is commonly used in general practice for diagnosing and monitoring adrenal disease.

Synacthen is the most common formulation of synthetic ACTH used for ACTH stimulation tests. Unfortunately, there is currently a temporary shortage of Synacthen in Australia.

The protocol for the ACTH stimulation test involves intramuscular injection of the entire vial of Synacthen (0.25 mg/dog). However, a much lower dose of Synacthen has been reported to achieve the same degree of adrenal stimulation as the entire vial. Using the lower dose and freezing the remaining Synacthen will not only be cheaper, but will stretch out your stores of this drug until it is available again.

The low dose ACTH stimulation test protocol is as follows:

1. Collect a baseline serum sample.
2. Give **5ug/kg Synacthen IV**.
3. Collect a serum sample 1 hour after injection.

The remaining Synacthen can be frozen for use with another patient. Don't forget to write the patient's clinical history on the submission form – interpretation is limited without this vital information!

Reference: Watson ADJ et al. Plasma Cortisol responses to three corticotrophic preparations in normal dogs. AVJ. 1998; 76: 255 – 257.

Anti-Müllerian Hormone

Vetpath recently introduced the Anti-Müllerian Hormone (AMH) test for detecting residual ovarian or testicular tissue in dogs and cats.

AMH is produced by the granulosa cells in ovaries and Sertoli cells in testicles. The test is highly sensitive and recent results at Vetpath show a clear difference between neutered animals and those with residual gonadal tissue.

The major benefit of this test is its convenience. Collection of a blood sample is much easier than vaginal cytology and the patient does not need to be showing clinical signs of oestrus.

The AMH test requires 2ml whole blood in a red top tube.

Small animal faecal analysis

Faecal analysis is a useful diagnostic tool for assessing both small and large animal patients with gastrointestinal disorders.

The small animal faecal analysis available at Vetpath has traditionally included wet microscopy, concentration for cysts and ova, microscopy for excess fat, starch and fibre (FSF), faecal trypsin and occult blood. A gram stain was only performed with a faecal culture.

Tests for faecal excess FSF and faecal trypsin have previously been the only means of assessing patients for maldigestion and malabsorption. In theory, the presence of undigested FSF are indicative of maldigestion and/or malabsorption, and the absence of faecal trypsin suggests reduced secretion of proteolytic enzymes by the pancreas.

However, these tests are of low sensitivity and are of limited use in the diagnosis of malassimilation. The amount of FSF in faeces can be affected by diet and intestinal transit time. Faecal trypsin is a measure of faecal proteolytic activity and is not just indicative of pancreatic trypsin. Proteolytic activity may also be bacterial in origin (particularly in dogs with small intestinal bacterial overgrowth) and false negative results can occur in samples containing large amount of mucus and little actual faecal content.

Faecal FSF and trypsin testing has been replaced by the serum trypsin-like immunoreactivity (TLI). Serum TLI is a more sensitive and specific means of diagnosing exocrine pancreatic insufficiency. Canine TLI is performed at Vetpath, but is not routinely available for cats (only available at an overseas lab).

Due to the low diagnostic use of faecal excess FSF and trypsin, from the 1st of July 2014, Vetpath will no longer run these tests as part of the small animal faecal analysis. The cost of the small animal faecal analysis will decrease to offset this change. In addition, a gram stain smear will be added to the faecal analysis to help evaluate the bacterial population present.

The small animal faecal analysis will now include:

1. Wet microscopy – examines faeces for the presence of white blood cells, erythrocytes, Campylobacter-like organisms, yeasts and parasitic cysts and ova.
2. Concentration for cysts and ova.
3. Occult blood.
4. Gram stain.

Please call the laboratory if you have any questions regarding faecal testing at Vetpath.

How do I store faecal samples?

Most diagnostic samples submitted to Vetpath need to be stored prior to arrival.

But how should a faecal sample be stored? As with most biological specimens, the general principle of "fresh is best" applies to faeces. Faecal samples should be submitted as soon as possible to Vetpath to maximize integrity of ova, oocysts and cysts. With any delay over a few hours, the sample should be refrigerated and sent with a cold pack during transit.

NATA

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