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

MARCH 2015

Association between oestrus and onset of epilepsy in dogs

The link between sex hormones and epilepsy in women is well documented. However, little is known about the relationship between oestrogen, progesterone and seizure activity in entire female dogs.

Idiopathic epilepsy is the most common chronic neurological disorder in dogs. A recent paper published in JVIM evaluated the link between the oestrus cycle and the onset of seizures in intact female dogs with idiopathic epilepsy.

This retrospective study found that of 45 intact dogs with idiopathic epilepsy, 38% had their first seizure when in heat, 13% had their first seizure 1 – 3 months after heat, and 20% had seizures recurring in relation to their oestrus cycle.

Two patterns emerged within the data regarding when seizures began; the first was onset of seizures during heat and the second was onset of seizures during dioestrus. Possible causes of these patterns may be the proconvulsive effects of oestrogen during oestrus, and the loss of protective effect against seizures of progesterone during dioestrus.

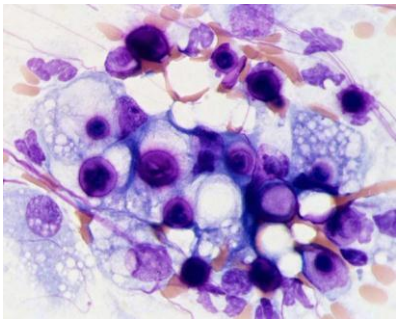
Stage of oestrus cycle may therefore be worth considering when diagnosing idiopathic epilepsy in entire female dogs. A combination of vaginal cytology and serial measurement of progesterone concentration is the best method of determining stage of oestrus in dogs.

Reference: Van Meervenne, SAE, et al. Association between Estrus and Onset of Seizures in Dogs with Idiopathic Epilepsy. JVIM. 2015; 29: 251-253.

What is your diagnosis?

A 5 year old DSH cat presented with a nasal discharge, sneezing and a swelling over the bridge of the nose.

A photomicrograph of a direct smear of the nasal discharge is below. What is your diagnosis?



Source: http://veterinary-clinical-pathology.blogspot.com.au/

Confirmation of Campylobacter infection

Campylobacter jejuni is a small, Gram negative, spiral-shaped bacterium that can cause gastroenteritis in humans and animals.

Spiral-shaped bacteria can be identified on wet microscopy or a Gram stained smear. However, not all spiral-shaped bacteria are *C. jejuni*. Camplyobacteriosis can be confirmed by culture or PCR. Routine faecal culture does not provide the special conditions required for growth of *C.jejuni*. And while *Campylobacter* culture is available at a referral laboratory, a more sensitive method of identification is the multiplex faecal PCR panel.

As a panel, the faecal PCR test identifies multiple organisms including *Campylobacter sp* via the highly sensitive and specific method of PCR. As with any diagnostic test, the results of the faecal PCR test must be interpreted in light of the clinical signs, signalment and history as strains of non-*jejuni Campylobacter sp* and *Clostridium perfringens* can be excreted in healthy animals. At least 1g of faeces is required for the PCR panel and the sample should be kept refrigerated.

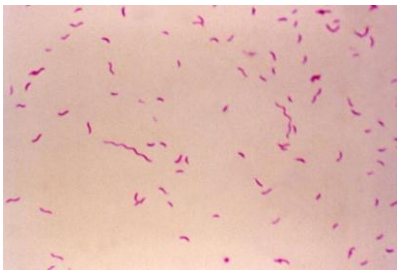
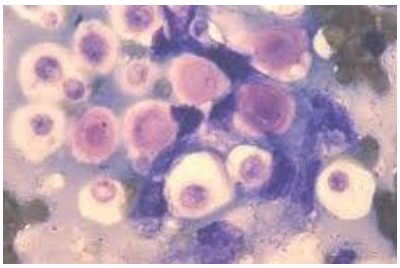


Figure: Grain stained smear containing *Campylobacter sp*.

The diagnosis is….

….Cryptococcosis

The smear reveals pyogranul-omatous inflammation with intracellular yeast organisms. The fungal elements are round and purple with a thick colourless capsule. Narrow based budding is occasionally seen.



Source:http://www.medadvocates.org/diseases/opportunistic/cryptococcosis/case.html

Cryptococcosis is a relatively common disease in cats. Smears of nasal exudate often contain numerous *Cryptococcus sp* organisms that have a distinct morphology. Detection of cryptococcal capsular antigen in serum is a useful screening test if organisms are not identified. Culture of the organism confirms the diagnosis.

Meet your pathologist!

Dr Jason Stayt graduated from the University of Sydney in 2002 and spent 5 years in private practice. After completing a clinical pathology residency program at Murdoch University he became board certified in clinical pathology in 2012. Jason spent a year in the UK, and then returned to Perth to join Vetpath in 2013. Jason has a special interest in haematology and cytopathology. In his spare time, he likes to keep fit with running, swimming, and yoga.

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