

Paws claws and judder things

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In this issue.....

Our focus is on cats and some of the problems associated with our feline friends. We hope these articles answer many of the questions you have on these subjects.

FELINE INFECTIOUS PERITONITIS

This disease, caused by feline coronavirus, continues to be a diagnostic challenge. In our experience, it is most prevalent in young cats under 3 years and cats older than 12 years old. Coronavirus infection is typically a disease of breeding catteries and pedigree cats (Birmans, Burmese, Ocicats, Ragdolls), although this is not always the case, and most infected cats live normal lives.

As knowledge of Feline Infectious Peritonitis (FIP) progresses, there is now evidence that a small percentage of cats develop disease due to their inability to develop an adequate immune response to replicating virus in their macrophages, rather than due to virus mutation to a more virulent form as was widely believed. Hopefully by studying cats that are resistant to disease development an effective vaccine may be possible in the future.

Diagnosis of FIP is notoriously difficult, particularly with the dry form that has no abdominal or thoracic effusions. Histopathology and immunohistochemistry will give a definitive diagnosis. In the live animal a combination of factors are needed to improve the possibility of making a diagnosis. These include clinical signs, routine clinical pathology, examination of effusions should they be present, electrophoresis and serology. Serology needs to be interpreted with caution as cats infected by the feline enteric coronavirus without FIP may have high titres. Similarly, current PCR assays are unable to distinguish enteric coronavirus from FIP.

The following results suggest FIP when combined:

- A clinical history including anorexia, weight loss, anaemia and fever;
- Variable presence of a regenerative anaemia and neutrophilia;
- High serum protein, especially in the globulin fraction where there is a polyclonal gammopathy and an albumin:globulin ratio (A:G) <0.8;
- A thoracic or abdominal effusion consisting of mainly non-degenerate neutrophils in a proteinaceous fluid (TP >35) with an A:G ratio <0.4

While none of these findings are specific for FIP, when they are combined, they are convincing evidence for the disease.

FELINE INFECTIOUS PERITONITIS



Contd.

Electrophoresis may be useful in differentiating from other conditions causing increases in globulin fractions, and also monoclonal gammopathies from antibody producing tumours that result in a low A:G ratio. However, note that in cats with FIV the gammopathy and electrophoretogram can be similar. Electrophoresis may also be useful to assist diagnosis in cats suspected of having the dry form of FIP where there is a gammopathy and no effusion.

REFERNECES:

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Proceedings of The Small Animal Veterinary Association Conference. Sydney, 2008

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FELINE TRICHOMONIASIS

Tritrichomonas foetus is an intestinal protozoan parasite of cats associated with chronic diarrhoea accompanied by large bowel inflammation, faecal incontinence and anal irritation. Diarrhoea can last weeks, months, or years and is most commonly reported in younger animals of both sexes. Adult cats are less likely to develop diarrhoea in response to *T. foetus* infection but may serve as a source of infection for others. *T. foetus* should be considered in cases where examinations for bacteria, gastrointestinal parasites, *Giardia* spp, coccidia and cryptosporidium are negative.

Successful treatment of feline trichomoniasis has been reported with Ronidazole, while metronidazole and fenbendazole have been shown to decrease clinical signs but can't eliminate infection. Many cats infected may appear to recover only to relapse at a later time. Some animals may appear to recover yet remain positive for the organism by PCR.

A real time PCR assay for *T. foetus*, performed exclusively by Gribbles Veterinary, has been available since 2008. Analysis of submissions received in the first quarter of 2009 revealed *T. foetus* was detected in 26% [23/87] of cats. The average age of cats testing positive for *T. foetus* during this period was 21 months (age range 2mth – 7yr).

Many cats infected may appear to recover only to relapse at a later time.

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Our Team of Experienced & Dedicated Staff

Liz McInnes is editing a book on background lesions in lab animals.

Veterinary pathologists are no strangers to "elephant traps", those unusual lesions found in different animal species, which are perfectly normal. These lesions are erroneously described as unique, novel pathological lesions by each new generation of veterinary pathologists. It is important that pathologists are aware of the background and incidental lesions that can be observed in different animals, especially rats, mice and exotic pets.

This book gives details and an illustration of the majority of background lesions encountered in rats, mice, minipigs, cynomolgus monkeys, marmosets and hamsters. These are the principle animal species encountered in the field of toxicological pathology and pathology of exotic pets. Many background changes are seen in ageing animals and special provision is given to the background changes encountered in ageing mice and rats. This book aims to present a picture and a short explanation of all background lesions encountered in all laboratory species. This book aims to bring together information contained in a diverse number of obscure publications together with an illustration. This book would be of invaluable use to toxicological pathologists and veterinary pathologists involved in evaluating tissues from exotic pets or laboratory animals.



Dr Liz McInnes

Liz McInnes has been ably supported by a group of illustrious veterinary pathologists who are writing the different chapters. These pathologists hail from the United Kingdom and the United States. The book has been commissioned by the international publishers Elsevier and is expected to be available for sale at the end of this year. Please contact Liz McInnes on 0400638864 or elizabeth.mcinnnes@gribbles.com.au if you are interested in obtaining more information about this book or the toxicological pathology services offered by Gribbles Veterinary Pathology

Investment into our Labs

The latest additions to our laboratory at Clayton are the ADVIA 1800 and the Immulite 2000 from Siemens. The ADVIA 1800 is a clinical chemistry system that allows us to throughput 1800 tests per hour and 200 basic metabolic panels per hour to meet turnaround-time demands. The Immulite 2000 is an immunoassay system that can have a throughput of 200 tests/hour. Both instruments are linked by VersaCell to consolidate chemistry and immunoassay testing.

Advantages:

- Gribbles Veterinary has a system that handles both biochemistry and endocrinology.
- It makes for a more efficient system.
- Low volume samples are easily managed.
- Reduces sample handling.

In addition, at Clayton the laboratory has had some renovations. These improvements have given our staff better access to equipment and improved workflow. We hope these improvements will make for a more efficient and timely service.



ADVIA® 1800



Immulinite® 2000

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