

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

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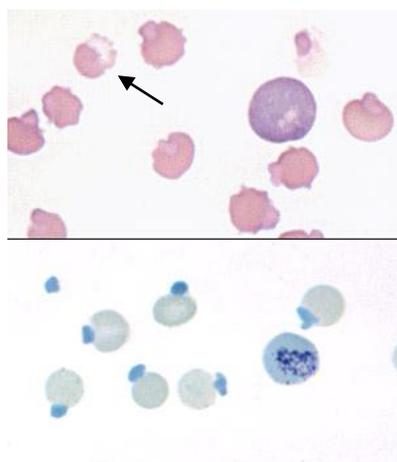
Paracetamol toxicity

Paracetamol (Panadol™ or Panamax™ in Australia, or acetaminophen/Tylenol™ in the USA) is a NSAID that is fairly safe and commonly used in humans, but is toxic in dogs and cats.

Paracetamol is metabolised in the liver, and a toxic single dose in dogs is commonly considered to be between 100 and 200mg/kg, though toxicity can also occur following multiple smaller doses. In cats 10mg/kg is toxic. The primary pathology of toxicity in dogs is hepatic necrosis, and although methaemoglobinaemia, eccentrocyte and Heinz body formation does occur, this effect is more common in cats.

Signs of toxicity can occur as soon as 1-4 hours post ingestion, but usually occur within 6-24 hours. In cats you may see

chocolate brown mucous membranes (due to methaemoglobinaemia), cyanosis, dyspnoea, vomiting, oedema of the face, neck and limbs, ataxia, hyperaesthesia, convulsions or coma. In dogs both signs of liver necrosis and methaemoglobinaemia may be seen, including oedema, cyanosis, vomiting, ataxia and neurological signs.



Heinz bodies and eccentrocyte (arrow) (Wright's stain, above and reticulocyte stain, below).

Source: www.eclinpath.com

Biochemical changes in dogs may include increased AST and ALT due to hepatocellular necrosis, with icterus and

hyperbilirubinaemia due to liver damage or haemolysis. Decreased liver function may follow, and nephrosis may be found at post-mortem. In cats, methaemoglobinaemia, haemoglobinuria, and Heinz body formation are more common than liver disease. Liver necrosis, oedema and icterus may occur up to 48 hours post ingestion.

Early diagnosis and serial monitoring of liver and renal function and Heinz body formation is important. Paracetamol can be measured in the serum 4 - 24 hours post ingestion. This test can be performed urgently at a local referral lab through Vetpath.

References:

Acetaminophen Toxicity in Cats and Dogs, *Compend Contin Educ Pract Vet* 22[2]:160 Feb 2000 Review Article, Nancy S. Taylor; Nishi Dhupa.

Management of Acetaminophen and Ibuprofen Toxicoses in Dogs and Cats Jill A. Richardson, DVM ASPCA Animal Poison Control Center, 2000.

Vaccination titres – which method should I choose?

The Vetpath website lists several options for canine vaccination titre testing based on the analytical methods used.

Vetpath performs titre testing for Canine Distemper Virus (CDV) and Parvovirus (CPV) by indirect fluorescent antibody (IFA) twice weekly. The IFA test is ideal for determining vaccination status economically and quickly.

Titre testing is also available at Biobest in Scotland using viral neutralization and haemagglutination inhibition for CDV and CPV, respectively. Although these methods are considered the gold standard, they are only required if a dog is being evaluated for vaccination product failure.

Canine Adenovirus (CDA) testing is only available at Biobest, and can be combined with CDV and CPV IFA tests at Vetpath. Tests performed at Biobest can take up to 4 weeks for completion.

Please contact the lab to speak with a pathologist if you have any questions about which vaccination titre tests are appropriate for your patient.

Down the scope!

Pathologists love finding interesting infectious agents on cytology smears; especially fungi!

But not all fungi are morphologically similar. Here are a couple of images from recent cases that show how pleomorphic fungi can be. Although some fungal species have specific morphological features, fungal culture is required for definitive identification of the species present.

Case 1

An 8 year old Staffordshire bull terrier presented with a 1cm x 1cm round, hairless lesion on the dorsal left hind leg. The smears (figure 1) contained a mixed inflammatory cell population with numerous small round to oval structures with a thin colourless capsule consistent with arthrospores. The cytology was suggestive of dermatophytosis with pyogranulomatous inflammation.

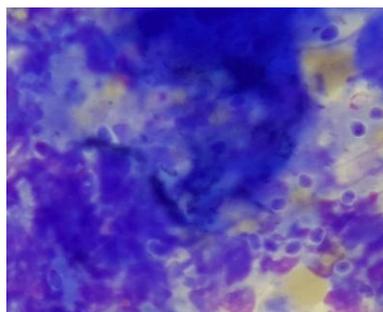


Figure 1: Structures consistent with dermatophyte arthrospores.

Case 2

An adult Sphynx cat presented with a lump on the left thigh. The patient had a history of generalised itchiness and suspected atopy. The smears (figure 2) contained a mixed inflammatory cell population with frequent pleomorphic fungal hyphae. The hyphae were branching, septate and often had non-parallel walls. Frequent areas of constriction near globose dilations are seen. Fungal culture would be required to identify this species.

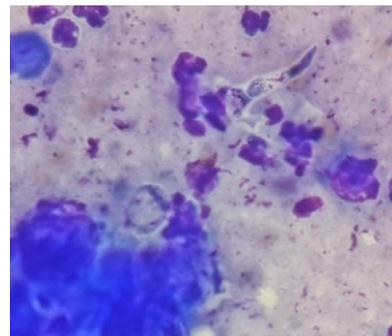


Figure 2: Fungal hyphae.



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