

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

APRIL 2017

New cars!

Vetpath now has a fleet of four newly branded cars that travel around the metropolitan area collecting samples from clinics. Give them a wave if you see them on the road, and let us know if you have any feedback from your clients when they see them out and about.

Vaccination status testing

Vaccination testing has become more popular for practices with clients wishing to check their pet's immunity before proceeding with annual vaccination. Vetpath has several different options for testing; with both in house and as send away tests available.

Vetpath performs a combined immunofluorescent antibody (IFA) test for canine patients (Parvovirus (CPV) and Canine Distemper Virus (CDV)) and feline patients (Calicivirus, Herpes virus and Panleukopenia virus). The IFA test determines the level of specific anti-viral IgG in the serum. Studies have shown that the IFA method is comparable to the gold standard virus neutralisation test (VNT), which can be performed at Biobest Laboratories in the UK for CDV, Canine Adenovirus (CAV), Feline Calicivirus and Feline Herpesvirus.

Which method should you choose? For most cases, the IFA test for vaccination status performed at Vetpath is adequate for assessing vaccination status. IFA testing is also cheaper and has a quicker turnaround time than tests performed at Biobest. Serum can be sent separately to Biobest if titre testing for CAV is also required.



Cytologic criteria for MCT grading

Histological grading of mast cell tumours (MCT) helps to predict the biological behaviour of these lesions. Traditionally, grading has not been used in cytological preparations.

A recent study published in *Veterinary Pathology* used the newer two-tier histological grading system to develop a cytological grading system that is useful for predicting patient outcomes.

MCT were classified as high grade if the cells were poorly granulated or had at least 2 of 4 findings including mitotic figures, binucleated or multinucleated cells, nuclear pleomorphism or greater than 50% variation in nuclear size (Figures 3 and 4). Lesions classified as low grade had highly granulated mast cells that exhibited minimal anisokaryosis (Figures 1 and 2).

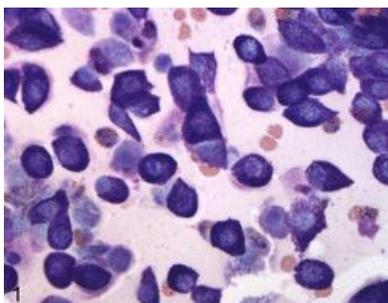


Figure 1. Cytologic low grade. Highly granulated mast cells with minimal anisokaryosis.

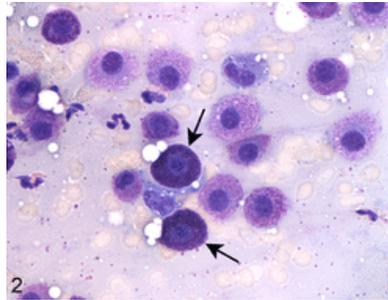


Figure 2. Cytologic low grade. Mast cells of mixed granularity with minimal anisokaryosis; most are poorly granulated with fewer highly granulated forms (arrows).

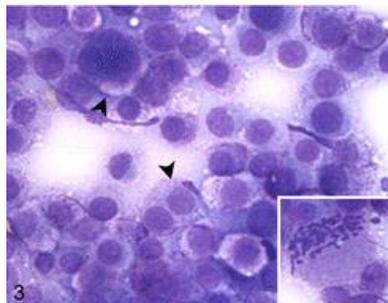


Figure 3. Cytologic high grade. Mast cells are poorly granulated, display binucleation and multinucleation (arrowheads), and a few mitotic figures are observed (inset).

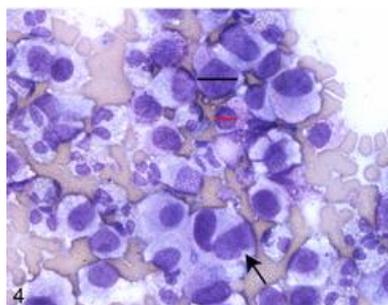


Figure 4. Cytologic high grade. Mast cells are poorly granular and display anisokaryosis with some nuclei (black bar) >50% larger than others (red bar) and others showing nuclear pleomorphism, characterized by non-round nuclei (arrow).

The cytological grading system had 88% sensitivity and 94% specificity relative to histologic

grading. More MCT were found to be high grade by cytology compared to histology equating to a higher false positive rate on cytology. However, falsely judging that a MCT is high grade on cytology is preferable than having more false negatives which could lead to inadequate treatment of aggressive tumours. Cytological grade also correlated well with survival times, with dogs having a high grade MCT being 25 times more likely to die within the two year follow up period than those with a low grade MCT.

The cytologists at Vetpath will now be providing clinicians with a cytological grade for all mast cell tumour diagnoses. While histological grading is still recommended, the additional information on the initial screening cytology will assist in planning of the surgery and subsequent staging.

Reference: Camus, MS. Et al. 2016. *Vet Path.* 53 (6): 1117-1123.



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