

**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 2011**

## **HOW GOOD IS YOUR PATHOLOGY TRIVIA?**

Vetpath is hosting a pathology trivia night! This will be a great opportunity to socialize with your colleagues over a light dinner and drinks. Although the theme is pathology, the emphasis of the evening is to have fun with great prizes being up for grabs! Book your tables of 6 now by calling Vetpath at 9259 3600.

**Date:** Wednesday 18<sup>th</sup> May.

**Time:** 6:30pm for 7pm start.

**Location:** Ascot Quays, 150 Great Eastern Hwy, Ascot.

**RSVP:** Deanne Broughton by the 11<sup>th</sup> May.

## **BLOOD SMEAR ARTIFACTS**

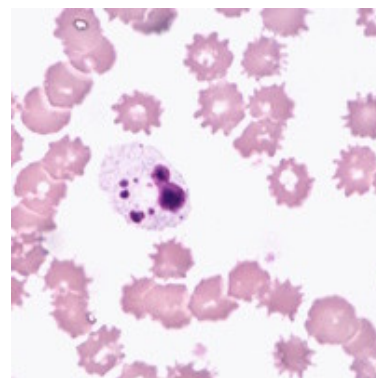
In the last edition of VN News, normal erythrocyte morphology for dogs, cats and horses was discussed. In this edition, we will look at some of the more common artifacts seen on blood smears, before addressing some of the specific red cell morphology abnormalities.

Abnormalities on blood smears can either be pathological or artifact. It is important to correctly identify artifacts so that they are not incorrectly interpreted as a pathological process. Some of the more common in vitro artifacts are discussed below.

### **Aging artifact**

Aging of blood cells in EDTA samples causes changes in both erythrocyte and leukocyte morphology. Eventually, cells with break down completely,

rendering the specimen useless for analysis. In Figure 1 (below), the erythrocytes display severe crenation (echinocytes) and pyknotic and karyorhectic leukocyte is unidentifiable after 48 hours in EDTA at room temperature.



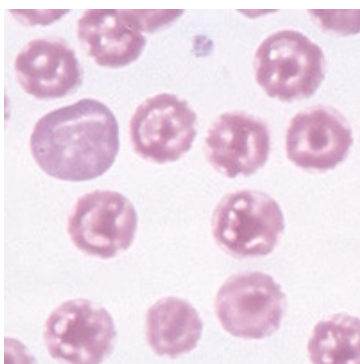
**Figure 1:** Crenation of erythrocytes.

If there will be a delay of longer than 24 hours before the sample is processed, an air-dried, unfixed smear should be submitted along with the EDTA sample.

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## Drying artifact

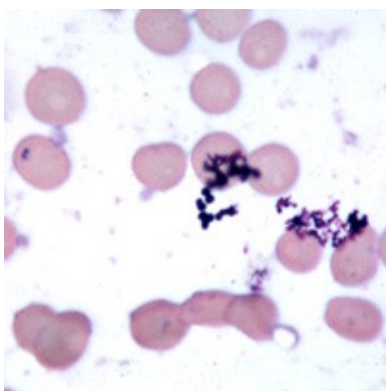
When smears are not dried thoroughly before staining, they can have a moth-eaten, refractile (shiny) appearance (see Figure 2 below). This artifact can often be mistaken for *Mycoplasma hemofelis* when present on the edge of the erythrocytes.



**Figure 2:** Drying artifact on erythrocytes.

## Stain precipitate

Stain precipitate on smears can occur with the use of aged stains and/or inadequate rinsing. The precipitate can be in a higher plane of focus and should not be misinterpreted as hemoparasites.



**Figure 3:** Stain precipitate.

Next month, VNews will begin a series on identifying classic erythrocyte forms and discuss the pathological significance of these cells. We hope this will help with interpretation of your blood smears and the haematology reports you receive from Vetpath.

## Liver fluke Samples

Assessment of faecal samples for liver fluke eggs can be completed in a variety of species.

However, there is some variation in the minimum sample size required depending on the species of animal being tested.

Submission of an adequately sized faecal sample is essential for accuracy of the test.

Minimum samples sizes required for liver fluke testing are as follows:

Horses and cattle: **10g** of faeces.  
Sheep and camelids: **4g** of faeces.

Please also note that the turn around time for liver fluke testing is **10 working days**.

Please contact the laboratory on (08) 9259 3600 if you have any questions regarding liver fluke testing.

## Question about a test?

Don't forget that Vetpath's website is a wealth of useful information!

[www.vetpath.com.au](http://www.vetpath.com.au)

All tests offered by Vetpath are listed on the website. Helpful tips include the samples required, which samples are unsuitable, minimum volume requirements, turnaround times and how to request the test. There is also information on how to perform certain tests (e.g. those with specific requirements) and the extensive export testing offered at Vetpath. Prices are not listed, so please contact us on (08) 9259 3600 for help with costing.



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