

Hi everyone

Please find below the latest ASAP news.

Urine Dipstick Analysis



Urine dipstick analysis is an important component of the urinalysis and can be easily performed in the veterinary clinic.

The use of urine dipsticks was recently discussed at the annual conference of the American College of Veterinary Pathology. Examples of topics discussed at the lecture include how urine dipsticks are stored, how to use the dipsticks and which pads are useful in veterinary medicine.

Storage of urine dipsticks

Urine dipsticks should be stored in their original, airtight container at room temperature and out of direct sunlight. Take note of the expiration date and try to use the dipsticks before they are expired. Moisture is thought to be the most important interfering factor and therefore it is important to not remove the desiccant package.

Urine samples

Urine for dipstick analysis should ideally be tested within 30 minutes of collection. If there will be a delay in analysis, the sample should be refrigerated and then returned to room temperature at the time of analysis. The temperature of the urine is an important consideration because many of the enzymatic reactions on the dipstick are temperature sensitive.

The sample should be mixed thoroughly and the dipstick should be placed horizontally into the sample. Make sure that you read the results at the appropriate time; this is especially important for the blood pad on the dipstick.

Which pads do we use?

Although purchasing strips with the most pads may seem like a good idea, this practice may be wasting money if you are paying extra for pads that are not

diagnostically useful. The only pads needed on urine dipsticks for veterinary patients are pH, protein, glucose, ketones, blood and bilirubin. Worthless reagent pads include specific gravity, urobilinogen, bacteria and leukocytes. The latter two reagents in particular have low sensitivity and specificity in veterinary species and do not replace wet microscopy for diagnosis of inflammation and infection. We use and sell the Siemens multistix, pack of 100 at \$48.00 - [see details and order here](#).

Attention to the hints described above will help ensure accurate and repeatable urine testing occurs in your clinic. Please [contact us](#) if you need assistance with use and interpretation of urinary dipsticks.

Webinar Next Tuesday: Mastering the Orthopaedic Exam – Tips and Tricks



Tuesday 14th April 8PM

Dr. Chris Preston, Registered Specialist Small Animal Surgery

Pet Emergency and Specialist Centre

Join us for this exciting webinar. Chris is a fantastic speaker with a great deal of experience to share about this important tool in your arsenal.

[REGISTER NOW](#)

All ASAP webinars are free for both veterinarians and nurses to attend.

[Please click here to view the full program](#) or register for any of the webinars.



points

You may claim AVA VetEd points as well as your normal CPD

[ADRENALS: What you wont find in a textbook](#)



Dr. Sue Foster, our medicine specialist consultant, is sharing her knowledge and experience in an 8-part series on Adrenal Disease. Here is the second part. Please [let us know what you think](#).

PART 2: CLINICAL SIGNS

Hyperadrenocorticism (hyperA)

1. Not every dog with hyperA will have polyuria (PU) and polydipsia (PD). PU and PD are common signs in hyperA but lack of PU/PD should not preclude investigation or diagnosis of hyperA. Similarly, and as a logical extrapolation, hyposthenuria and isosthenuria, whilst common in hyperA, are also not necessary for a diagnosis.

PU is reportedly due to interference with ADH-mediated water resorption in the renal collecting ducts however, as it does not occur to any great extent in humans or cats (unless there is concomitant diabetes mellitus), then I suspect it may be due to a glucocorticoid-mediated “psychogenic” polydipsia in dogs. The fact that many dogs do not exhibit polydipsia when hospitalised and often concentrate their urine quite well in hospital adds further weight to this hypothesis.

“Psychogenic polydipsia” in older dogs is nearly always due to hyperA and adrenal function testing should be performed prior to water deprivation testing in investigations of polydipsia in all patients other than those in which another cause is identified or congenital diabetes insipidus is suspected.

2. Up to 50% of dogs with hyperA are reported to have urinary tract infections (UTIs).

HyperA should be considered in any older dogs with an UTI especially if the UTI is recurrent or relapsing.

3. Polyphagia is more consistent than polydipsia but is not necessarily evident in some dogs due to pre-existing ravenous feeding behaviour (eg Labradors, Beagles). Anorexia or inappetence in a dog suspected of having hyperA should prompt investigation of concurrent non-adrenal disease; non-adrenal disease may interfere with adrenal function test results.

4. Abdominal distension (pot-bellied appearance) occurs in >80% of cases though it may be subtle. It is due to redistribution of fat, muscle wasting and hepatomegaly. Urinary bladder over-distension may also contribute and occasionally in dogs, the over-distension results in bladder atony and dysfunction; this is reversible with catheterisation to relieve the bladder distension, and concurrent “emergency” treatment of hyperA.

5. Intermittent abdominal bloating is a sign of hyperA that is often reported by owners and may even be the major presenting complaint. It is difficult to know whether this is due to polyphagia/over-eating, mild pancreatitis or some other cause. However, when “bloating” is due to hyperA, it resolves quickly with effective treatment.

5. Dogs with hyperA may have muscle wasting or decreased exercise tolerance. Decreased exercise tolerance and lethargy may not be noted as owners often attribute these to age and arthritis. Muscle wasting, especially temporal and paralumbar, tends to be more obvious in large breed dogs.

6. Skin and hair coat changes are well described but the following points are often not highlighted:

- bilaterally symmetrical alopecia is rarely present in large breed dogs
- lightening in coat colour and alteration in coat texture may be the only coat changes
- solar bleaching can occur at the ends of the hair shafts because the hairs are not replaced as rapidly as normal
- pyoderma may be the only sign of hyperadrenocorticism
- excessive bruising (eg the bruising that occurs after careful venipuncture in that well behaved Maltese with the not-so-pleased owner) is common with hyperA
- failure to regrow hair after clipping for venipuncture or surgery should prompt investigation of endocrine disease
- resolution of chronic recurrent seasonal atopy or flea allergy dermatitis as a dog gets older, whilst great for the dog and owner, may be an indication of hyperA
- calcinosis cutis is uncommon in spontaneous hyperA; the most severe cases of calcinosis cutis are usually iatrogenic.

6. Increased panting is reportedly due to increased fat deposition over the thorax and in the abdomen, wasting and weakness of the muscles involved in respiration and decreased pulmonary compliance. However, I wonder if panting is yet another “psychogenic” feature of hyperA in dogs as it does not occur in cats or humans and seems to happen very quickly after treatment with exogenous corticosteroids i.e. before any anatomical changes have had time to occur.

7. Always consider hyperA as a possible predisposing cause when older, not particularly active dogs present with cruciate ligament rupture (especially if their hair fails to regrow after surgery!).

8. Testicular atrophy in older male dogs may be due to hyperA. Failure to cycle and clitoral hypertrophy can occur in females: aged, intact, non-cycling females with hyperA are prime candidates for pyometra!

9. Neuromuscular signs are uncommon in hyperA. Myotonia is rare but if an aged dog presents with a very unusual gait (marked abduction of forelimbs, bizarre stumbling gait) and obvious muscle tone then think of this. Facial paralysis (unilateral or bilateral) is an exceedingly rare presenting sign. Neurologic signs of pituitary macroadenomas are often quoted but are quite rare; altered mentation, disorientation, ataxia and pacing are more common than seizures, coma and blindness.

10. Last, but not least, “old age/slowing down” is possibly the most common side effect of hyperA. Most owners note that their dog seems much younger once hyperA is successfully treated and many realise that they have incorrectly attributed “slowing down” to old age rather than hyperA for a long time (sometimes years).

Hypoadrenocorticism (hypoA)

1. Recurrent signs of gastrointestinal disease and a vague history of lethargy may be the only signs of hypoA, especially in dogs that have glucocorticoid deficiency only.

2. Cardiovascular collapse is not only due to mineralocorticoid deficiency and resultant hypovolaemia. Glucocorticoids are also important for cardiovascular function and cardiovascular collapse can occur in spontaneous and iatrogenic glucocorticoid deficiency.

3. Intermittent, difficult-to-localise abdominal or spinal pain responsive to prednisolone in a younger dog (especially if known breed predisposition e.g. Poodle or Fox Terrier) should prompt adrenal function testing for hypoA.

My Pathology Shop April Special



Giardia Antigen Detection Kit x5
(ImmunoRun) **\$65.00 + GST** (Normally \$80 + GST)

Expiry Dec 2015

Species: dog, cat, horse

Pathogen: Detection of Giardia Antigen

Sample material: faeces

Test time/duration: 10 minutes

Storage: Room temperature (15–25°C)

Format: 1 package with 5 test cassettes

Please apply discount code: **mypathshop4** when [ordering online](#). Valid to the 30th April and only while stock lasts.

Yellow Submission Bags



You may have noticed we have switched to yellow bags. This is to allow us to clearly differentiate vet samples in our courier network.

Please try to use yellow bags whenever possible when submitting samples to ASAP lab.

PLEASE NOTE: if you are submitting samples to us via express post bags, **please address them to our physical address below and not to the post box.** This will ensure smoother operations and avoid delays in result delivery.

Thank you for reading