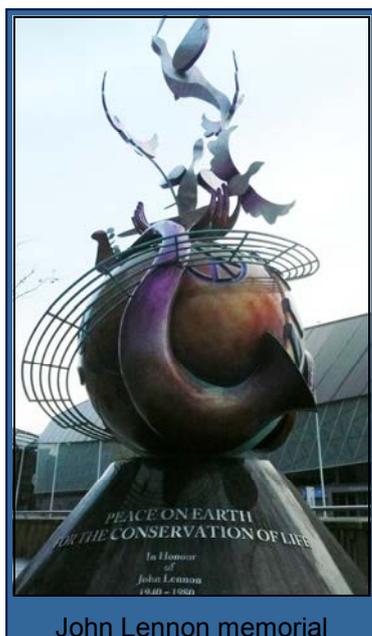


# King Edward Referrals News

Another few months have flown by and I get a severe allergic reaction every time I walk into the shops and see the **Christmas** decorations. I'm looking forward to shops clogged with holiday makers and streets full of confused tourists like a hole in the head too—but I guess that's the silly season for you. At least summer should arrive with them.

Since the last newsletter, we've had the national **SAVA congress** at the Boardwalk which I'm sure you agree is a beautiful venue. For me, Mike Willard's pre-congress endoscopy wetlab was a definite highlight as was his series of superb talks on the pre-congress day. The NVCG continue to find excellent overseas speakers.



John Lennon memorial

In September I attended the **ECVIM congress in Liverpool**—that weird statue to the left is a John Lennon memorial just outside the funky new conference venue. The pre-congress day was all about vaccination which I know is something you find riveting. The 3 d ECVIM congress had a superb program including a whole day on pulmonary hypertension, lots of cardiology and a whole morning on neuroendocrine tumours. **Kenneth Joubert** got roped in to doing a lecture with less than 24 hrs notice—because the human specialist they'd lined up had been admitted to hospital. He did a fantastic job and made the rest of us South Africans very proud of him.

Last week **Eukanuba** sponsored the last (probably) CPD event of the year in PE with a talk on Cushing's, Addison's and

ACTH stims. The turnout was excellent—as were the pizzas—and I'm sure you'll join me in **thanking Cube Route** for continuing to support events that have nothing at all to do with dog food but hopefully make you better vets.

The reason this newsletter is rather late again is because you guys have kept me very busy again. **Thank you very much for your support this year** and **please do let me know if there's anything we can do to improve our service to you or your clients.**

*Travis*

## Case study 17: A vomiting YRT with a large belly

Imagine, Koda (a 7 yo FN YRT) presents to you because she has been off food for 2d, vomited for 1d, has an acute abdomen and is now collapsed. Her owners remark that her abdomen appears distended. You find she has ascites (fluid wave, radiographs, ultrasound, abdominocentesis...).

**Question 1:** What are the possible causes?

**Question 2:** Your refractometer tells you the fluid has an SG of 1.014 and a total protein of 18 g/l. Does that help narrow down the DD? How do you differentiate these DD?

## Index

### Page 1

- Case no 17— Ascites

### Page 2

- Case 18—Zaki, the col-lapsing cat
- Answers for case 17

### Page 3

- Answers for Case 18
- The Tutts are in PE

### Page 4

- Homeopathy for PE
- Canine babesia smears
- Cool radiographs
- Christmas at King Edward Referrals



Koda

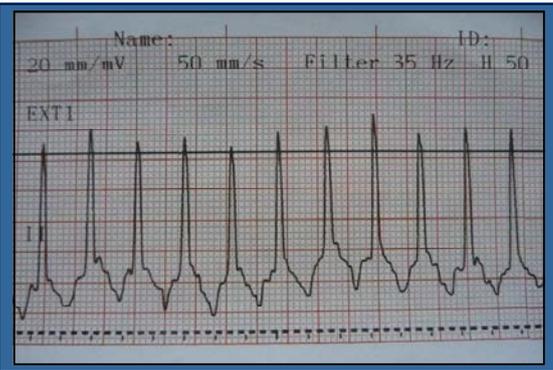
## Case 18: The collapsing cat

Zaki, a 20 mo old MN Sphinx was referred by Taneale McFarlane of Cape Cross Veterinary Hospital because he'd collapsed without loss of consciousness. His owner was aware that hypertrophic cardiomyopathy is prevalent in the breed and wanted this excluded. An echo showed early changes consistent with HCM (thickening of the walls of the LV) without atrial enlargement. There was 2/6 L systolic murmur caused by a tiny mitral regurg jet but no dynamic outflow tract obstruction. Clinical examination was unremarkable and no further investigations were performed. No treatment was given. 7 weeks later, he again appeared lethargic. His owner reported a rapid heart rate, cyanosis (he has a white skin and no hair) and a rectal temperature of 35.7C.



Zaki

By the time he arrived here he was more alert and the cyanosis had resolved. HR was 180 with a good pulse in both femoral arteries, sinus rhythm and no pulse deficits. Jugular veins appeared prominent and rectal temperature was 36.9C but no other abnormalities were detected. We collected blood to investigate non-cardiac causes of collapse. His heart rate increased dramatically—see the ECG strip here. The rate was unchanged when he fell asleep on the table.



**Question 1:** What paper speed was used?

**Question 2:** What is his heart rate now?

**Question 3:** What sort of rhythm does he have?

**Question 4:** How would you manage this case?

### Answers for case 17

**A1: DD for ascites, vomiting, abdominal pain:** trauma (usually a haemoperitoneum); diaphragmatic hernia; peritonitis (GI pathology incl ruptured ulcer, penetrating wound..), pancreatitis (rarely causing obvious distension), acute hepatopathy, bile peritonitis, portal vein / CVC thrombus (very rare), abdominal neoplasia, bladder rupture

**A2:** You have a pure transudate (SG < 1.017, TP < 25 g/l). DD are all causes of SEVERE hypoalbuminaemia (< 15 g/l, usually < 10 g/l), pre-sinusoidal portal hypertension (rare liver diseases and obstruction to blood flow between the intestines and the liver), early urabdomen.

You could separate the DD by checking albumin, a bile acid stim, blood urea and creatinine and the creatinine in the abdominal fluid.

**No access to a lab? Here's what you do:** Consider the clinical examination—is there evidence of fluid leaking elsewhere, eg s/c or into the pleural cavity? If the only fluid you find is in the abdomen, hypoalbuminaemia is less likely.

Next: take some of the ascitic fluid and heat it (I've done it with a lighter and a teaspoon). If the fluid starts smelling of urine, you have a urabdomen. Now all you need to do is find the hole and the cause.

**Outcome:** Our patient had an 8 mm urethral stone and a ruptured bladder. (Ouch- she only weighed 5 kg!). We did a speed GA with IV fluids and monitoring BP. The stone was stuck, so Stephan Ferreira of Walmer VH placed a very neat cystostomy catheter for me (thanks Stephan!). Creatinine fell from 515 to 64 µmol/l in 2d. Koda passed the stone 4d post-op.



Day 1—bladder stones and urethral stone

Day 3

Bladder stones removed, urethral stone present



**Remember: Hill's offer a FREE urolith analysis (as long as you fill the forms in right).**

**ALWAYS** submit stones you've removed for analysis— finding out what they are means you have a chance of preventing further stone formation. **Till you have the results back, feed canned food / kibble soaked in as much water as your patient will tolerate—to try and prevent precipitation of more crystals**

### Answers for Case 16—ECG

**A1:** The **paper speed** in 50 mm/s—it says so on top (black circle)

**A2:** Here are 2 ways of measuring the **heart rate**.

1. You can count the beats in a few seconds and then multiply out.

- Each tiny block is 1 mm.
- So each square of 5 blocks is 5 mm = 0.1 sec.
- Each little tab at the top (red circle) marks off 5 squares = 0.5 s at a paper speed of 50 mm/s.
- So if you start at the tab circled in red and go 2 tabs forward (to the purple tab) that's 1 s.
- If you count all the beats in this gap you get to 7.  $7 \times 60 =$  approx heart rate of 420 bpm.

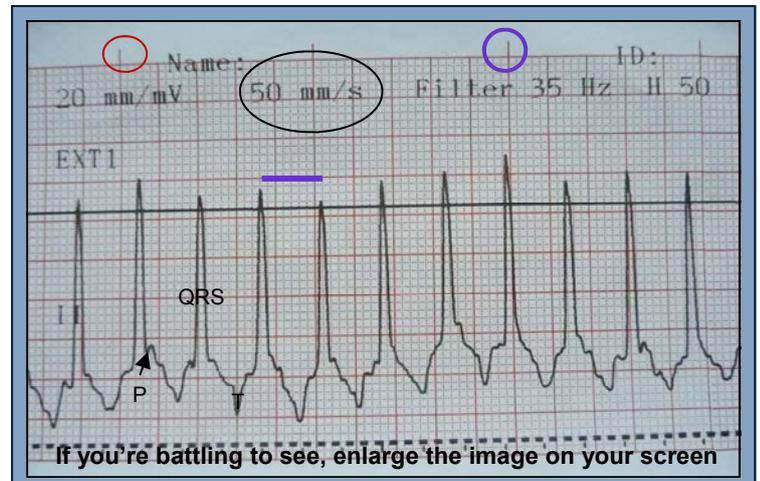
*Counting the beats in 1 sec isn't desperately accurate—you're better doing this over 3-6 sec*

2. Alternatively you can **remember 3000**. If you count the blocks between 2 R waves (purple line) and divide 3000 by this number you get the instantaneous heart rate ( $3000/8=375$ bpm). *You use 1500 if you want to do the same at a paper speed of 25 mm/s*

**A3: The rhythm:** obviously, there is a tachycardia.

- We need to decide whether it's originating above / below the AV node. QRS Complexes that originate below the AV node typically look weird (wide and bizarre), whereas those that originate above the AV node look relatively normal. If you see a constant relationship between P and QRS complexes that's added evidence that it's supraventricular, but at high rates like this the P waves are hidden in the preceding QRS complex. **So this is supraventricular**
- Next we want to know whether it's atrial fibrillation / another supraventricular thing: **With atrial fib, the RR intervals vary**. With other rhythms they don't. Zaki's RR intervals are constant. So no atrial fib.
- Most commonly, when we're dealing with heart rates this high and a supraventricular rhythm we're dealing with a **re-entrant rhythm**. What's that? Normally the atria and ventricles are electrically insulated from each other and the only way a current can pass from one to the other is through the AV node. With a re-entrant rhythm, that insulation has been breached at some point and a stimulus can pass back from the ventricles to the atria, depolarizing them again resulting in this super fast heart rate. This is called an **accessory pathway**.

**A4:** Re-entrant tachycardias are most common in **young Labradors** (Wolff Parkinson White Syndrome). Affected animals present with weakness, but not usually loss of consciousness. Episodes can persist for seconds to hours. Owners may detect tachycardia and polypnoea. You might detect pallor, cyanosis and poor pulses as well (all signs of poor cardiac output). If the arrhythmia persists, signs of CHF may develop. Sudden death is possible. Supraventricular tachycardias that are NOT atrial fibrillation are **very rare in cats**, but have been reported in some young adults. They present much like the above. **Treatment:** In Europe, vets have started mapping and then **ablating the accessory pathway** with electrocautery. Cats are too small for this, so we're left with trying to slow conduction through the AV node with drugs in the hope that this will normalize heart rate. First line choices are diltiazem and **atenolol**. Diltiazem tastes foul to cats and is not available in a cat size in South Africa, so we went with the beta blocker atenolol.



### Tutt & Tutt

Cedric and Kim will be seeing Ophthalmology and ENT cases  
at Bayview  
On 29 and 30 November

Please call Bayview Animal Clinic  
On 5813203 for appointments



## Veterinary Homeopathy in PE



More and more clients are exploring alternative therapies for their pets. Luckily for them, you now have a **registered vet** that is also a **formally qualified homeopath** that you can refer these patients to... rather than the owners consulting the internet or a homeopath extrapolating from what (s)he knows about humans.

We have a new colleague in town: please join me in welcoming **Stef Skupin**. Stef graduated with a BVSc from Berlin in 1999, was in small animal practice in Cape Town between 2002 -2008 and, after 4 years of training and a set of exams, became a licensed associate of the Faculty of Homeopathy in the UK in 2008. She moved to the Eastern Cape in 2012.

She will be seeing cases at Bayview Animal Clinic,  
once a week  
by appointment only  
Please call 041 5813203 if you have a suitable case

## Canine babesiosis—

is there concurrent ehrlichiosis?

Colleagues that worry because they're not seeing red cell regeneration on a smear 1-2 days after giving Berenil...can stop worrying. **News-flash: This is normal.** In the average uncomplicated babesia case, the retics often only start increasing 3d after treatment and the PCV takes **3-6 days to normalize.**

Uncomplicated babesia cases **often have a neutropenia on presentation.** The average neutrophil count stays in the normal range throughout treatment though by day 3 INDIVIDUAL DOGS can have very severe neutrophilias ( $> 40 \times 10^9/l$ ).

The average PLT count for these 96 dogs was  **$3-4 \times 10^9/l$  on presentation.** All 96 were thrombocytopenic. PLT counts typically take **3-6d to normalize.** Find the full article in JSAVA at <http://www.jsava.co.za/index.php/jsava/article/viewFile/51/57>

Mild to moderate lymphadenopathy, a high TSP ( $> 80g/l$ ) and petechiae are also regularly recorded in cases with *B. rossi* ONLY.

**Epistaxis, anterior uveitis, hyphaema, polyarthrits, a poor bone marrow response after a week, PCR or elevated Ehrlichia IgM** provide better evidence for ehrlichiosis... though there's little harm in giving some doxycycline if you're not sure.

## Cool radiographs of the last couple of



Dog ate cat— that's it's skull!



This elderly YRT was referred because she was coughing. She has advanced CMVD and severe collapse of the mainstem bronchi. FNA confirmed that the thoracic mass is liver—so an incidental and probably congenital hernia



## Christmas at King Edward Referrals

We will be open on normal working days  
closed on the public holidays  
We will close at 1 pm on the 24th

You can reach me on 083 2596136  
in an emergency

