

Echos in February, March and April get a free ECG assessment (if the patient tolerates it and time permitting) with my new digital ECG machine!

When I started VetArtis I envisaged I would be doing mainly abdominal scans with complex medicine cases, but it seems that I can be of most help providing more cardiology services and now about half of the cases I see are heart cases. I get why, as scanning hearts is technically much more challenging than an abdominal scan and unless you do lots on a regular basis there isn't much chance to get confident in them. Hence over the past 6 months I have been doing lots of practical training and research on echocardiography and cardiology in general. Luckily my ultrasound machine helps me get awesome images of the heart, I have a brand new ECG machine and I will be investing in more phased array probes this year. Combined with the significant number of echos I perform every week, I feel my level of echocardiography has come on in leaps and bounds. There will always be things that are too unusual or tricky and I am happy to advise when these should be scanned by a diplomate cardiologist.

The downside to echos is that they take longer to get the views and to interrogate them and write the reports, hence I now price echos slightly higher than

abdominal scans. I endeavour to take still pictures and videos during the examination so I can get as much done as possible without taking up too much of your staff's time or the patience of the pet that needs to stay still while I collect them.

What cases should be scanned?

- Murmurs – all new murmurs should be investigated, no matter the age of the patient or how loud it is.
- Gallop rhythms in cats.
- Arrhythmias.
- Dyspnoea, coughing, shortness of breath.
- Syncope or collapse.
- Exercise intolerance.
- Signs suspicious of left or right heart failure – pleural effusions, ascites.

I now offer:

- Echocardiographic assessments and a report with suggestions for ongoing management and monitoring. An echo should always be much, much more than a list of numbers or even a name of the condition and it is important to consider the wider picture. Yes, there will be the name for the condition but also the severity and any concomitant conditions such as pulmonary hypertension. Clients will inevitably want to know how much longer they have with their pet and so I include some idea of prognosis.
- ECG for cardiac arrhythmias. This can be sent externally for a second opinion for complex cases.
- Pericardial fluid assessment and drainage. I carry the kit to carry out pericardial drainage.
- Work ups for syncope, collapse and exercise intolerance.



What do I not offer

- Echos for congenital conditions in puppies and kittens less than 6-9 months old – at this age an assessment by a Diplomat and access to definitive treatment is best. The Ralph offers a 'Heart Murmur Clinical for puppies and kittens' for only £195 including VAT. I will assess congenital conditions in older animals.
- Canine and feline pedigree heart testing (breed-specific health screening).
- Holter monitoring for cardiac arrhythmias or collapse investigations. I recommend the services of Heart Vets or The Ralph who can provide the device and jackets as an outpatient service, plus full interpretation.

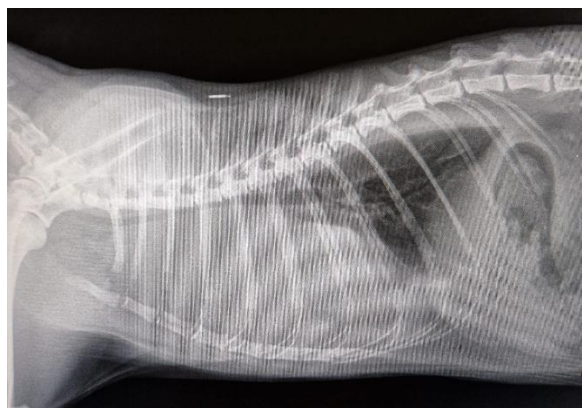
What about dogs with Mitral Valve Disease?

All dogs with suspected mitral valve disease (MVD) should have an echo performed, not just waiting until the murmur is 'loud'. The echo will confirm the cause of the murmur which is important as some breeds are prone to MVD and dilated cardiomyopathy, such as cocker spaniels and Labradors, with very different treatments and prognoses and sometimes other more significant cardiac issues are identified. Also, the stage of MVD cannot be elucidated from the loudness of the murmur, especially differentiating the cases that would benefit from therapy from those that won't.

Subsequent to the EPIC trial, we know that starting the right cases of MVD at the right stage on pimobendan is a good thing – they get about 15 months additional time until the onset of CHF, representing a 60% extension of asymptomatic period, and an increased overall survival time. However, pimobendan is not necessarily an entirely benign therapy plus it is costly, so it is not appropriate to arbitrarily start a dog on pimobendan on the basis of the loudness of a murmur. MVD progresses at a very variable rate and is unpredictable for an individual dog (apart from repeated echos) and hence a dog may be on therapy for many years before reaching the stage where it would actually benefit from it. For a year's supply for a 10kg dog, even buying it online and without the written prescription costs and check-consultations, is currently about £300.

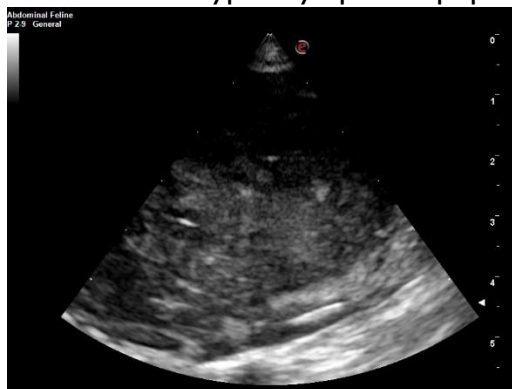
Interesting Case

I was recently booked for an urgent echo on a 3 year old cat that presented with sudden onset dyspnoea. Thoracic x-rays showed a soft tissue opacity pushing the lungs dorsally and caudally and 150ml of serous fluid was drained from the chest; the cat was started on furosemide.



I saw the cat the next day and it was still significantly tachypnoeic. On scanning its chest, there was some free pleural fluid but not enough to cause the significant tachypnoea. The echo showed a normal size left atrium and subjectively the rest of the heart was of normal size and function. This ruled out congestive heart failure as a cause of the pleural fluid.

The scan also revealed a huge cranial thoracic mass. With ultrasound guidance and colour flow doppler to avoid the blood vessels, I took some FNAs. As this cat was in critical condition, I stained some slides and looked at them while at the practice in order to speed the management of the case; the smears were packed with lymphocytes of various sizes and very obvious nucleoli and even some mitotic figures. This diagnosed mediastinal lymphoma which is an uncommon manifestation of feline lymphoma and is unusual in that usually affects younger cats than the typical lymphoma population.



You can watch videos from this case on YouTube at <https://youtu.be/iv8JaVImVac> I also put videos on my Instagram page @vetartisuk.