

ANTECH IMAGING NEWS

Introducing the Future of Veterinary ECG

Imagine it is 4:30 pm on a Friday afternoon. Your exam rooms and lobby are packed with clients. Your staff is frazzled from a long day and anxious to get on with their weekend. A client runs in from the parking lot, frantic because their Great Dane is in their car and in distress. You don't have the immediate help to get the dog out of the car, and you are suspecting atrial fibrillation. You would normally do an ECG telephonically, but you cannot get near a phone to connect.

You then remember that you just received a Bluetooth-enabled ECG unit from Antech Imaging Services. In fact, it is in your pocket from the last patient, and you also have your cell phone with the AIS ECG app! You are able to connect the dog to the ECG without having to move him, and you send the ECG consult request directly from your phone to AIS. Within minutes, you receive a report back confirming atrial fibrillation. You are able to treat the dog while he is still in the car, and he improves quickly enough to get out of the car on his own and walk into your hospital for further evaluation and treatment.

This unit will:

- Be compatible with iOS and Android devices
- Directly connect to your AIS account through a dedicated app
- Access results anywhere you have internet connectivity
- Feature 6-leads and be Bluetooth-enabled
- Be compact and pocket-sized

Look for more information on AIS' latest technology in the next few months!

Who can you call?

For technical questions:

AIS Telemedicine
Support (24/7/365)
Office: 1-877-727-6800
Fax: 1-877-870-4890
Support@AntechImagingServices.com

For all other questions or concerns

Lisa Ziemer, DACVR Chief Medical Officer
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Access AIS Education at this link:

<http://info.antechimaging.com/antech-education>

THIS ISSUE'S

FEATURED

SERVICE...

CARDIOLOGY



AIS Cardiology Specialist Dr. Jennifer Schneiderman, ACVIM (C)



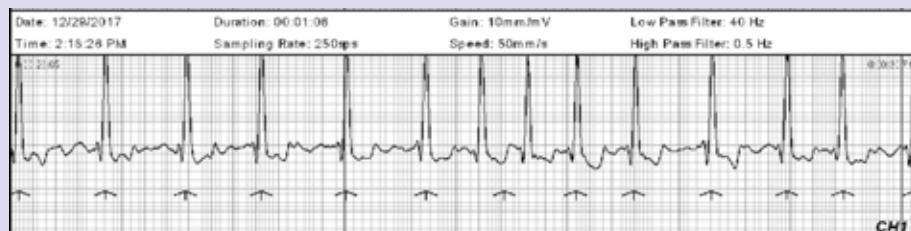
Hometown: Jericho, New York

Hobbies: Traveling, scuba diving, hiking, pilates & yoga

Pets: 2 Tuxedo cats

Experience: Ross University - DVM 2009
 Atlantic Coast Veterinary Specialists - Internship & Residency(C) 2013
 Atlantic Coast Veterinary Specialists - Former Staff Cardiologist
 Ultravet Mobile - Former Consulting Cardiologist
 NorthStar VETS - Former Staff Cardiologist

"Begin each day with optimism & end each day with forgiveness. Happiness in life begins & ends within your heart."



WHAT'S YOUR DIAGNOSIS? Quick Case Study



Patient: Toby, a 10 year old NM Goldendoodle

Symptoms: High HR and arrhythmia during exam, anorexia, coughing

Diagnosis: Atrial fibrillation w/high ventricular response rate

Further tests: Thoracic radiographs, echocardiogram, CBC and chemistry panel, systemic blood pressure

Treatment: Anti-arrhythmic therapy such as calcium channel blockers, beta blockers and/or digoxin

***Note:** Atrial fibrillation can be associated with structural heart disease as well as congestive heart failure. In large breed dogs you can see atrial fibrillation in the absence of underlying structural cardiac disease.

WHAT'S YOUR DIAGNOSIS? Featured Case Study

Patient: Spunky, a 15 year old NM Shih Tzu

Symptoms: Syncopal episodes twice daily



Fig. 1: There is moderate to marked right atrial and right ventricular dilation with normal left atrial and left ventricular size.

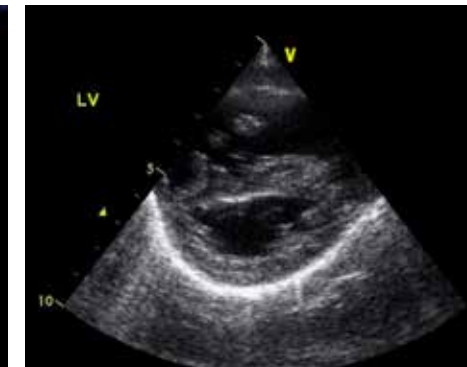


Fig. 2: There is flattening of the interventricular septal wall, consistent with increase right ventricular pressures.

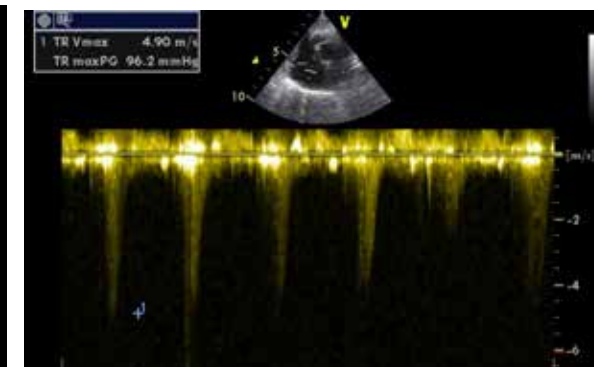


Fig. 3: There is a large regurgitation across the tricuspid valve measuring approximately 4.9 m/s, this is converted into 96 mmHg using the modified Bernoulli equation.

Assessment:

The echocardiogram shows evidence of severe pulmonary hypertension. These changes are significant enough to account for the patient's clinical signs of syncope.

In the absence of severe left-sided cardiac disease or left-to-right cardiovascular shunts, pulmonary hypertension is either secondary to pulmonary disease (infectious/inflammatory, thromboembolic disease, tracheal collapse, chronic bronchitis etc.) or is idiopathic in nature. Echocardiography is the standard, noninvasive method of diagnosing pulmonary hypertension in clinical veterinary patients. Multiple echocardiographic modalities, including 2-dimensional imaging and Doppler flow examinations offer complementary information in the diagnosis of pulmonary hypertension.

Further testing:

It would be recommended to test this patient for heartworm disease and either test or treating palliatively for lungworm disease (depending on the region). Complete bloodwork (including CBC, chemistry panel and urinalysis) should also be evaluated. If this patient has a history of coughing, further workup for airway disease (tracheal collapse, chronic bronchitis, etc.) is advised.

Treatment:

Common treatment for pulmonary hypertension in veterinary patient's is with phosphodiesterase (PDE)-5 inhibitors, such as sildenafil. Other PDE inhibitors, such as pimobendan, may have some effect in treating pulmonary hypertension and are commonly used in veterinary medicine. It is then recommended to recheck an echocardiogram in 3-6 months (pending clinical signs) to assess response to therapy.

Need help with a cardiology case?

All cardiology consults include:
**Radiographs,
Echocardiogram,
ECG**

Call 1-877-727-6800 for more info!



Cardiology Corner

Read the Featured Case Study on page 3 to find words for this month's puzzle!



E B I N H I B I T O R S H U N T S D I M A G I N G M
 C I C B C Y W L V T D M K V B Y T I R R L B N Y K M
 H N P A L L I A T I V E L Y M G J S B M Z J T J Y T
 O T D D V J Y T Z R Q L J R B Z N E V D Y Z R Z G D
 C E B R Q Y J G T R B T M P L T T A L P M R Q Z K V
 A R I D I O P A T H I C T J R B R S Y D J W G J J T
 R V P H O S P O D I E S T E R A S E T R B G G R T M
 D E T H R O M B O E M B O L I C U R I N A L Y S I S
 I N I N F L A M M A T O R Y I N F E C T I O U S D M
 O T H E A R T W O R M S Y N C O P A L C H R O N I C
 G R Y D O P P L E R N V R M S E V E R E V A L V E Y
 R I P S I L D E N A F I L Q D J X B W N Z D R G K J
 A C E V C A R D I O V A S C U L A R T R A C H E A L
 M U R E G U R G I T A T I O N P P L N T K B N Q Q N
 B L T N B M V P X T V T B N O I U U P L D V M Y M V
 R A E T L V B R T R T B E Q N M L N Z B B N N R X Z
 O R N R O C H E M I S T R Y I O M G C O L L A P S E
 N D S I O C E S R C M M N J N B O W S Y N C O P E M
 C I I C D O P S V U Q J O P V E N O A I R W A Y P D
 H L O U W U I U L S K D U J A N A R S E P T A L T M
 I A N L O G S R W P D W L W S D R M A T R I A L J X
 T T M A R H O E L I Q Y L D I E Y G R T Q T M L Q V
 I I T R K I D S D D T N I R V N D X B D L T K J M Y
 S O V Q B N E K N T Z K J B E Y W T V Z Z V R Q T N
 M N Z M M G S G Y Q L P G J B T X Y D J V D D R Y L

There are 44 words in this puzzle.
 The number of words starting
 with the letters:

- | | |
|-------|-------|
| A - 2 | N - 1 |
| B - 3 | O - 0 |
| C - 6 | P - 5 |
| D - 3 | Q - 0 |
| E - 2 | R - 1 |
| F - 0 | S - 6 |
| G - 0 | T - 3 |
| H - 2 | U - 1 |
| I - 6 | V - 2 |
| J - 0 | W - 0 |
| K - 0 | X - 0 |
| L - 1 | Y - 0 |
| M - 0 | Z - 0 |

Answers will be in the
 Spring 2018 issue.

Answers to Fall 2017 puzzle: 1. Rush 2. Gidget 3. Grumpycat 4. Juniper 5. Sound 6. Thoroughbred 7. Dicom 8. Ten 9. Midwestern 10. Pennhip
 11. Fortytwo 12. Filly 13. Rostral 14. Twentyeight 15. Whistle 16. Sphynx 17. Sixteen 18. Beck 19. Germanshepherd 20. February 21. Lateral

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