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INSIDE  
THIS ISSUE:

- Canine case report 1
- Megaesophagus 2
- Surgery tip 2
- Radiology tip 2
- Publications 3
- MRI 4
- Community 4

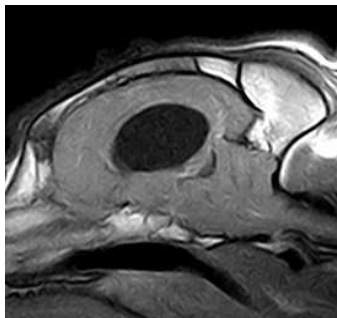
# The Synapse

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VETERINARY NEURO SERVICES LLC

## Hercules, Master of His Brain

Hercules presented as a one and a half year old, 28 kg, male neutered English Bulldog with seizures. Two days prior to presentation the dog was noted to breathe heavily, act scared and jumpy when touched. He tended to wander and had a small seizure with foaming at the mouth and stiffening of his body, followed by



MRI- T1W post contrast

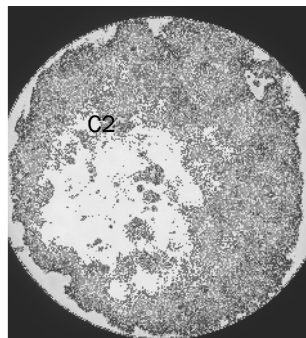
a grand mal seizure and clusters. At the ER, his temperature was elevated at 106F. He was treated with diazepam intravenously and IV fluids. He was transferred to the referring veterinarian. At that time, he was blind and deaf and had repeated partial focal seizures. He was treated with oral Phenobarbital. He presented to VNS with status epilepticus and was induced with 7 cc of 65 mg/ml pentobarbital IV and intubated.

Ammonia was normal limits. Referral blood work was also unremarkable.

MRI was obtained. The lateral ventricles were enlarged. The brain was overall hyperintense

post contrast on the FLAIR sequence and there was evidence of coning of the cerebellum indicating overall swelling of the brain. Spinal tap was obtained from the cerebellomedullary cistern and revealed 180 RBC, 60 WBC (normal is less than 5 WBC) with a mixed population of neutrophils and mostly small monocytes.

Dexamethasone NaP was administered IV at 1 mg/kg and doxycycline at 10 mg/kg IV. The dog went into respiratory arrest and was given mannitol (1 gram/kg bolus) and furosemide (4 mg/kg bolus) and was placed on the respirator. Cefazolin was initiated at 33 mg/kg IV and metronidazole at 11 mg/kg IV slow. The dog began to show slight reflexes 2-3 hours after arrest. Phenobarbital was continued at 3 mg/kg IM



NEUTROPHILIC PLEOCYTOSIS

BID. He eventually came off the respirator.

The dog was managed overnight by the local emergency

clinic and slowly began to become aware, was extubated and transferred to VNS in the morning. He was treated with metronidazole BID, cefazolin BID, dex SP BID, doxycycline BID, coupage, nebullization (for atelectasis), Phenobarbital BID.

The patient recovered and went home that day. The tick titers, toxoplasmosis titers and distemper titers were negative. The SNA for distemper was <4 which showed no protection and thus wild type distemper infection was possible. The diagnosis of sterile or distemper meningoencephalomyelitis was made.

One month later, Hercules was off the antibiotics. He continued on doxycycline for a total of 6 weeks. He continued on the prednisone for a total of 2-3 months. Phenobarbital was weaned off over two months period.

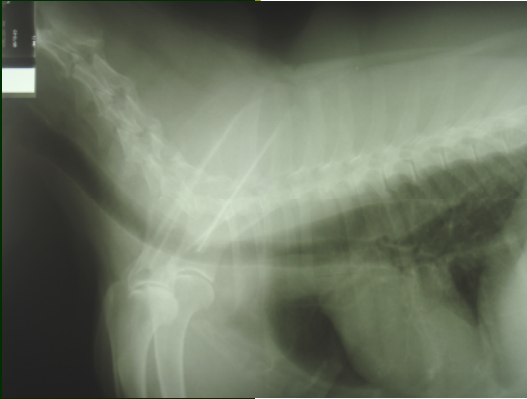
As of February 2009, Hercules was off all medications and seizure free.

For info: [chauveta@aol.com](mailto:chauveta@aol.com)



Hercules

# Megaesophagus



Megaesophagus can be very frustrating in both diagnosis and treatment. It is most often idiopathic but can occur with myasthenia gravis (25% of cases), secondary to gastric reflux, physical obstruction, or any esophageal trauma, any neuromuscular disease.

Diagnostics include thoracic radiographs without sedation to evaluate the esophagus, the lung fields for pneumonia and presence of masses like thymomas. Endoscopy may be needed if there is suspicion of reflux. Acetylcholine receptor antibody titers are needed. EMG may be of value and muscle and nerve biopsies as well if suspect neuromuscular disease.

Treatment is symptomatic including pyridostigmine bromide if suspect MG, cimetidine to decrease gastric acidity (or other similar drug), sucralfate diluted to coat the esophagus, between meals and metoclopramide for increasing GI mobility and esophageal tone. Feeding should be of a grawl and elevated. The patient needs to be kept elevated for 30 minutes post prandial.

Prognosis is guarded depending on the etiology. Some cases never resolve and medical management is long term to lifetime. Recheck radiographs are needed every 2-4 weeks to check on the status of the esophagus. Pneumonia is the most common complications and can be lifethreatening.

## Tech Corner

## MRI Galore

The Esaote Grande is running overtime with 300 MRI in less than seven months. Most of the scans are neurological patients yet we have had an amazing experience in finding gastric carcinomas on scans that endoscopy could not detect, nasal tumors, inner ear disease, cranial cruciate ligament ruptures (see image) and ruptured patella ligament. A cat with FeLV in the bone marrow was diagnosed ante mortem (confirmed post mortem) by MRI. Thoracic masses, thyroid adenocarcinomas and many other lesions have been imaged enhancing our diagnostic approach and thus therapeutic plan.

## Color it up!

Just because your OR needs to be sterile, it does not mean it has to be cold and boring too! Liven it up with a little color and design. Use brightly colored pattern material to make double thickness drapes. Any craft store or sewing department has loads of good sturdy cotton for use in drapes. You can use a color code (choose a pattern) for each type of instrument. For example, our gowns are in the koala pattern Dr. Chauvet's son picked for her. These drapes are very cost efficient. Try it out. And yes, we do have dachshund drapes too! *Denise Warner, CVT*

# Publication Reviews—what's new!

This section cover some of the neurological literature published over the past six months



- JAVMA 234 (2) - Two year old cat with thoracic limb paresis due to polyneuropathy shown on electrodiagnostic but no biopsies, spontaneously resolved. The point is to note that polyneuropathy can cause selective paresis.
- JAVMA 2334 (4) - 42 cases of acute noncompressive nucleus pulposus extrusion (ANNPE) in dogs reviewed: T2W axial image is the greatest predictable factor for recovery. I liked the concept but the images provided were questionable and there is no proof that these were IVD problems or vascular accident or other. Outcome was successful in 67% of the cases.
- JVIM 22(5) - Concentrations of acute phase proteins (APP) in dogs with steroid responsive meningitis arteritis (SRMA) is found to be of value. The C reactive protein in the serum (CRP) is noted to be higher in dogs with SRMA than dogs with other etiologies. Also the serum CRP correlate with alkaline phosphatase levels. Serum albumin levels were lower in dogs with SRMA. Thus there is value in measuring CRP in dogs with suspect SRMA.
- **Helping you pet get back on its feet!**
  - JVIM 22(4) - Of 56 dogs with choroid plexus tumors, 36 were carcinomas and 20 were papillomas. Golden retrievers were overly represented. Median CSF protein of carcinomas was significantly higher (108 mg/dl) compared to papillomas (34 mg/dl). Only carcinomas have evidence of metastases in the CNS on the MRI.
  - JVIM 23(1) - Endoscopic Assisted Intracranial Tumor Removal in Dogs and Cats: Long-Term Outcome of 39 Cases is an article by Dr. Lisa Klop and S. Rao which reinforces again the multidisciplinary use of endoscopy. The cost of the intracranial endoscopic might be prohibitive to private practice but the findings are remarkable in showing a median survival of over 2000 days (over six years).
  - JVIM 22(4) - Auditory abnormalities such as complete or partial BAER loss are common in horses with temporohyoid osteoarthropathy (THO). BAER thus can be of use in evaluating THO and the prognosis.
  - JVIM 23(2) MRI of right ventricular morphology and function in boxer dogs with arrhythmogenic right ventricular cardiomyopathy revealed that arrhythmias and myocardial dysfunction precede the development of morphological abnormalities in dogs with ARVC.
  - JVIM 23 (2) - Eosinophilic meningoencephalitis is usually idiopathic. Only about half the cases have MRI abnormalities. The degree of pleocytosis is variable. Idiopathic EME carry a better prognosis than other etiologies
- JVIM 23(2) - prevalence of deafness is greater in merle dogs than in piedbald dogs in English Cocker Spaniels but comparable to or lower than that in the Damaltian and white Bull Terrier. Dogs homozygous for the merle allele were significantly more likely to be deaf than heterozygotes. Still not very breeder practical but significant information.
- JVIM 23(2) - One article on two cases of CNS histiocytic sarcomas. Although the purpose is good, the article brings little to the literature as one case's MRI is less than adequate for ante mortem diagnosis and the other could be other lesions. This is by all means a filler.

**FVMA 80th  
Annual Conference  
Tampa Florida  
April 17-19  
[www.fvma.com](http://www.fvma.com)**

**Rendezvous with  
discovery**

**Palais des Congres de  
Montreal, Quebec  
June 3-6, 2009  
[www.acvim.org](http://www.acvim.org)**

**Connect with your  
peers with a cup of  
coffee and share!  
Join your local veterinary  
medical associations for  
networking!**

# Community—Spring Healing

VNS continues to support prevention of abuse to children and education about safety to animals and children. Although this year has been financially difficult on everyone, we feel very fortunate to be here and still a team. We extend our physical help to the Dachshund Rescue with whom we created a brochure about disc disease. We also congratulate Mote Marine for their constant effort to educate and produced an awareness brochure on red tide toxicity with them. In the past six months, VNS is proud to have supported the Big Cat Habitat and Gulf Coast Sanctuary in Sarasota. We continue to extend our help to all animal not for profit for they need us.

Dr. Chauvet became a board member of the ACVIM Foundation and is proud to have been selected for this eminent position.

VNS has trained a French veterinarian for MRI practice in her clinic and will travel to lecture to her referring vets on the topic.

*This year, we encourage you to pick one or two causes that are*

*close to your heart and extend your help to them either in financial support or donations, or in your time and praise of their work to others.*



*Happy Easter and*

*Passover!*

*Every day is a new*

*opportunity!*

Dr. Chauvet, Oliver Sacks and Vincent Chauvet

## MRI in house

- **IT'S CRANKING!**
- We have already scanned 300 cases in less than seven months
- MRI is offered for **both neurological cases and for non neurological cases**. The former will require an exam by a neurologist first and the latter will require a prescription.
- MRI cost is \$1450 which includes anesthesia, the scan, the report and a copy of the scan to both owner and the referring veterinarian.
- All patients over 3 years of age

will need blood work run within two weeks and thoracic radiographs taken within one month of anesthesia.

Bengal tiger getting an MRI



- Patients will have to be fasted 12 hours prior to anesthesia.
- Reports will be faxed and mailed within 24 hours. And a copy of the MRI will be provided to referring veterinarian AND client on CD.
- It is available 24/7 on a per need bases for an additional fee.
- For more information and Veterinary Neuro Services MRI brochures, please call 941-929-1818 or fax 941-929-1819.
- We have MRI BROCHURES FOR YOUR CLIENTS. Please ask us to send you some.