



BVNS neurotransmitter

Welcome to the latest edition of the BVNS Neurotransmitter. We are excited to continue to offer these case reports and hope they provide a valuable learning opportunity for our team and yours.

CASE STUDY: LUCY



Lucy is a 3 year-old, FS, Shih Tzu referred by AECC and Dr. Dove of Companion Animal Clinic.

Presenting Complaint/History:

This morning Lucy was discovered in her crate with large amounts of saliva, urine and feces. She was twitching, unsteady when she walked and had a glazed appearance. The emergency clinic noted profuse salivation and twitching and treated for possible organophosphate toxicity with atropine, anti-emetics and methocarbamol. Lucy was transferred later that day for progressive twitching on the right more than left-side and right side postural deficit. Please watch the video below. DO YOU THINK LUCY IS HAVING A SEIZURE?



Assessment:

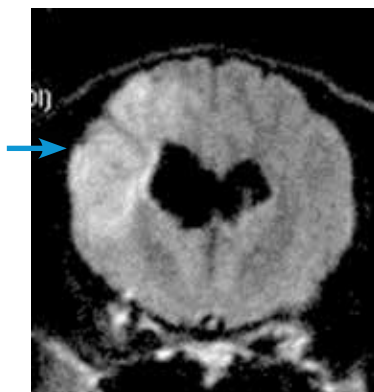
Lucy was thought to be having a seizure-like episode or possibly a non-convulsive seizure. The underlying cause was thought to be inflammation or infection of the brain.

Diagnostic Findings:

EEG showed that Lucy was having constant right-side seizure or non-convulsive status epilepticus (NCSE). In-house MRI showed a left forebrain inflammatory lesion while in-house CSF analysis and infectious disease testing were normal.

Diagnosis:

Meningoencephalitis of Unknown Etiology (MUE) manifested as non-convulsive status epilepticus.



Treatment:

NCSE was treated with Keppra 60 mg/kg IV in addition to about 20 mg/kg of phenobarbital.

MUE was treated with dexamethasone 0.2 mg/kg, BID, Cytosar 200 mg/M2 CRI and cyclosporine 6 mg/kg, BID.

Outcome:

Lucy made a rapid recovery and was sent home 3 days later on prednisone 0.5 mg/kg, BID, cyclosporine 6 mg/kg, BID and zonisamide 10 mg/kg, BID. Happily Lucy remains well 9 months after her diagnosis on every other day prednisone, cyclosporine and zonisamide every other day.

Take Home Points:

1. 25% of dogs (and people) in Convulsive Status Epilepticus will die from that disease. Human patients with abnormal mentation and NCSE have an even worse prognosis.
2. 'Twitchy' veterinary patients are common in veterinary medicine – many have encephalitis and NCSE. If these disease entities can be recognized and treated, a good outcome is likely. If these diseases are not recognized and treated, death is likely.
3. BVNS' clinical and research program using EEG has established that similar to human medicine, NCSE is an important and not uncommon disease entity. BE AWARE that all twitchy or dull dogs or cats may be having constant, global electrical seizure and require treatment.
4. Keppra 60 mg/kg IV and/or Phenobarbital 30-60 mg/kg, divided into doses of 6-8 mg/kg are recommended treatments stopping Convulsive or Non-Convulsive Status Epilepticus.

In house MRI: Blue arrow shows increase T2 signal (inflammation) in the left parietal lobe. This is the motor area for the right side of the body which explains the right side twitching seen on the video.

For more information or to discuss this case please contact **Dr. Bush.**

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- We are committed to taking your call. If a staff neurologist or resident is not available at the time of your call we will return your call within 45 minutes. If your call is urgent, please let a team member know.
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- We are open for regular and emergency neurology referrals Monday through Saturday in Leesburg and Monday through Thursday in both Springfield and Richmond.
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P 804.716.4716

F 804.716.4814

www.bvns.net

Our Team of Specialists

Jessica Barker, DVM, MS

Residency Trained in Neurology/Neurosurgery

David Brewer, DVM, DACVIM (Neurology)

Neurology/Neurosurgery

William Bush, VMD, DACVIM (Neurology)

Neurology/Neurosurgery

Michael Higginbotham, DVM, DACVIM (Neurology)

Neurology/Neurosurgery

Joli Jarboe, DVM, DACVIM (Neurology)

Medical Director, Neurology/Neurosurgery

Deena Tiches, DVM, DACVIM (Neurology)

Medical Neurology

Daniel Cuff, DVM, MS

Residency Trained in Neurology/Neurosurgery

Martin Young, DVM, MS

Residency Trained in Neurology/Neurosurgery

Casey Neary, DVM

Neurology Resident



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