

## **Overview/description**

#### **Nutritional management of canine epilepsy**

The objective of this presentation is to discuss management of canine epileptic patients, quality of life of both pet owners and patients, and advancements in our understanding of how diet can affect seizure control

## Speaker's bio and credentials



Holger A. Volk, DVM, PGCAP, PhD, Dipl. ECVN, FHEA, MRCVS

Holger is currently Professor of Small Animal Diseases and the Head of Department of Small Animal Medicine and Surgery, University of Veterinary Medicine Hanover and the treasurer of the European Board of Veterinary Specialisation. He graduated from the University of Veterinary Medicine Hanover in 2001, where he also did his PhD in Neuropharmacology studying basic mechanisms of drug-resistant epilepsy. He then completed his specialist clinical education doing an internship and a residency in Neurology and Neurosurgery at the Royal Veterinary College

(RVC). The RVC also provided him with the chance to not only excel academically and clinically, but also in his leadership skills, going through the reigns from lecturer to head of service, clinical director of the Small Animal Referral clinic and last as head of department of clinical science and services. Holger is internationally known for his work in the field of Chiari-like malformation/syringomyelia and epilepsy. He was President of the European College of Veterinary Neurology. Holger has been chairing the International Veterinary Epilepsy Task Force, which recently published seven consensus statements for canine and feline epilepsy and was a co-chair of the recent published ACVIM consensus statement about medical treatment of epilepsy. He has been a recipient of several Jim Bee educator excellence in teaching awards, the prestigious Bourgelat Award from BSAVA and the International Canine Health Award from the Kennel Club. He has published multiple books and book chapters, >200 articles, >130 conference abstracts, and is a frequent flyer on the international conference circuit.



#### Questionnaire

- 1. A holistic approach to managing epilepsy in dogs would include:
  - Removing potential triggers
  - o Reducing stress factors
  - Use of antiepileptic drugs
  - o Nutrition
  - All of the above
- 2. With regard to glucose metabolism in the brain, which of the following statements is false?
  - o The brain is dependent on a constant supply of glucose.
  - o In humans, the brain uses ≤20% of total glucose-derived energy expenditure.
  - Glucose metabolism by the brain increases with increasing age.
  - o Glucose hypometabolism by the brain is associated with canine cognitive dysfunction.
  - o All of the above are true.
- 3. Epilepsy management often requires a multi-modal therapy. Therapies to control epilepsy include:
  - o Antiseizure medication
  - Surgery
  - o Diet
  - o Lifestyle
  - All of the above
- 4. Which antiepileptic drugs have been shown to have the highest efficacy and are recommended for first-line treatment in dogs as according to the American College of Veterinary Internal Medicine and International Veterinary Epilepsy Task Force consensus statements?
  - Imepitoin and phenobarbital
  - o Potassium bromide and zonisamide
  - Levetiracetam and zonisamide
  - o Zonisamide and phenobarbital
  - Levetiracetam and potassium bromide



- 5. True or False. Evidence suggests that dogs with idiopathic epilepsy are prone to long term behaviour changes, such as fear and anxiety.
  - True
  - o False
- 6. True or False. Similar to cognitive dysfunction in dogs, dogs with epilepsy seem to have decreased trainability.
  - o True
  - o False
- 7. What does a traditional ketogenic diet entail?
  - o High protein, low fat and low carbohydrate
  - o High carbohydrate, low fat and low protein
  - High fat, low carbohydrate and low protein
- 8. Nutrition plays an important part in canine epilepsy management. Which diet type has been shown to be effective in placebo-controlled trials?
  - Hypoallergenic diet
  - o GI diet
  - Medium-chain triglyceride-enriched diet
  - o Omega-3 fatty acid-enriched diet
  - No diet has been shown to be effective.
- 9. A medium-chain triglyceride-enriched diet has been shown to have which of the following effects?
  - o Reduce seizure frequency (clusters) and number of days with seizures per month
  - o Reduce seizure frequency (clusters) but not number of days with seizures per month
  - Reduce seizure frequency (clusters) but increase adverse effects seen with antiepileptic drugs
  - o Reduce seizure frequency (clusters) but increase behavioral comorbidities
  - o Reduce seizure frequency (clusters) but increase weight significantly



- 10. Medium-chain triglycerides, specifically decanoic acid, are thought to have direct antiseizure effects via which mechanism:
  - o Activating GABA receptors, inhibiting excitatory neurotransmission.
  - o Blockage of Glutamate receptors, inhibiting excitatory neurotransmission.
  - Blockage of AMPA receptors, inhibiting excitatory neurotransmission.
  - o Activating AMPA receptors, inhibiting excitatory neurotransmission.

PERSONAL INFORMATION:		
First name:		
Last name:		
Type:		
(Veterinarian, Technician)		
Licence number:		
Province where you practise:		
Telephone:		
Email:		



# **CERTIFICATE OF COMPLETION**

# **Educational webcast Nutritional management of canine epilepsy**

# **Presented by**

Holger A. Volk, DVM, PGCAP, PhD, Dipl. ECVN, FHEA, MRCVS

# This document confirms that

Dr. Lorem Ipsum

has viewed the above-mentioned webcast and has answered and submitted the questionnaire meant to evaluate the understanding of the content.

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