

EVALUATING THE STRUCTURAL BRAIN DIFFERENCES OF DOGS DIAGNOSED WITH IDIOPATHIC EPILEPSY

Complete Title: Craniocerebral Topographical Mapping in Dogs with Idiopathic Epilepsy

Dr Fiona James

Purpose of the Clinical Study

Magnetic Resonance Imaging (MRI) is the gold standard for imaging diseases of the brain and spinal cord in both pets and humans. There are many different sequences (or settings) used in MRI imaging. Diffusion tensor imaging (DTI) is sensitive to the molecular movement of water and can provide information on the integrity and pathology of the brain on a cellular level. In dogs with idiopathic epilepsy (IE), the microstructures within the brain may be compromised. In order to better understand the abnormal brain structures associated with IE and potentially improve diagnostic and treatment options, we first need to compare DTI between IE and neurotypical dogs.

Is Your Pet Eligible?

- Neurotypical dogs with an average muzzle length and no obvious structural brain abnormalities or neurological disorders undergoing MRI
- Dogs with an average muzzle length and no physical head abnormalities undergoing MRI with a planned EEG recording
- Dogs with an average muzzle length diagnosed with generalized IE that have no other medical conditions, undergoing MRI

Visits / Samples Required

Electroencephalography (EEG) scalp electrodes will be placed prior to your dog's imaging. During the MRI, the DTI sequence will be collected. In addition, the research team will ask you to complete a short questionnaire.

Financial Incentives

The costs associated with the DTI sequence including additional (~30 minutes) anesthesia are covered by the study. This study is funded by **OVC Pet Trust**.



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**Questions about this study?
Please contact the research
team: epilepsy@uoguelph.ca**