INVESTIGATING THE PLACEMENT OF EEG ELECTRODES IN DOGS WITH EPILEPSY USING 3D RECONSTRUCTION

Complete Title: Craniocerebral Topographical Mapping for Improved Canine Electroencephalographic (EEG) Lesion Localization

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Purpose of the Clinical Study

Electroencephalography (EEG) is a powerful diagnostic tool used in human and less commonly in veterinary medicine to diagnosis seizures. Via scalp electrodes, spontaneous abnormal electrical activity (seizures) arising from the brain's cortical surface can be evaluated. Unfortunately, it is difficult to compare EEGs from the same dog, between dogs and between facilities due to a lack of protocol standardization. To improve the diagnosis and characterization of canine epilepsy, we need to better understand how scalp electrodes map to the underlying brain surface and establish a best practice for electrode placement.

Is Your Pet Eligible?

**All dogs must be mesocephalic (have an average muzzle length) and undergo a MRI or CT at the Ontario Veterinary College

- Neurotypical dogs with no obvious structural brain abnormalities and/or neurological disorders
- Dogs with no physical head abnormalities with a planned EEG recording
- Dogs diagnosed with generalized IE that have no other medical conditions

Visits / Samples Required

EEG scalp electrodes will be placed prior to your dog's imaging. During the scan(s), under general anesthesia, additional sequences of high-resolution anatomical images will be collected in order to facilitate 3D reconstruction.

Financial Incentives

The costs associated with additional imaging sequences including anesthesia (~30 minutes) are covered by the study. Funds to support this research are generously provided by **OVC Pet Trust**.

University of Guelph
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CLINICAL TRIALS

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