

**Research Project:****INVESTIGATION OF AN EPILEPSY EPIDEMIC IN CAMEROON**

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**Summary:** Epilepsy is a major problem and an important cause of mortality and disability in developing countries. More than 40% of the adult population of Ngie subdivision is affected with epilepsy. The epilepsy in Ngie appears to be an early childhood onset seizure disorder that appears to last well into adulthood, being life long in most cases. The object of this proposal is to investigate an apparent epilepsy epidemic, in the Ngie subdivision of the Northwest province of Cameroon.

**Hypothesis:** The increased incidence of epilepsy in Ngie is caused by neurocysticercosis caused by *Taenia solium*. More specifically, those patients in Ngie who have epilepsy have a higher percentage of seropositivity to *T. solium* than a matched unrelated control population.

**Objectives:**

- Determine the epidemiological profile of epilepsy in Ngie.
- Define the clinical epidemiology of seizures in Ngie
- Determine the serological status to *T. solium* in epilepsy patients in Ngie
- Determine serological status to *T. solium*, in matched, unrelated, case controls in Ngie

**Procedures:** In order to achieve these objectives, we will use a questionnaire for epilepsy that has been validated for use in developing countries, and serologies for cysticercosis determined from blood obtained via finger stick in Cameroonian patients with epilepsy and age-matched, non-related controls. The study is a case control design. Community and individual consent will be obtained for all questionnaire administration and finger-stick blood drawing. The results will be made available to patients in their various villages in a confidential manner. In a second phase of the study, those patients who screen positive for epilepsy will be seen by a physician or nurse practitioner member of the team for further evaluation including a neurological examination and an EEG as will a random sampling of patients who screened negative for epilepsy, but had positive cysticercosis serology and treatment trials will be designed.