

Identification of Risk Factors and Pathophysiology Underlying OAE

Group 5 Workshop

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OAE (Neurologic associated disease)

- Review of data – with listing of potential flaws
 - Dissemination of more information re NS risk factors and histories of populations
 - Do we need a central data base?
 - Epilepsy reports from old literature
 - Detailed information about *O. volvulus* infection prior to internal displacement

OAE (Neurologic associated disease)

- Studies to definitively define the neurologic manifestations of onchocerciasis
 - Flaws in case control studies
 - Defining the spectrum of neurologic manifestations of *O. volvulus*
 - Static vs dynamic factors as confounding factors
 - Epidemic vs endemic – what is the baseline across multiple geographic areas
 - Tools needed to assess rapidly and broadly NADO – (videos/survey tools)
 - Epilepsy definition/subtypes vs uniform, simplified definition
 - Standardized approach to epilepsy definition
 - Collect all relevant material for future studies

Risk Factors

- Environmental
 - Ecological data overlapping with *O. volvulus*
 - Population studies
 - Movement
 - exposure
 - Environmental exposures

Risk Factors

- Co-incident infections
 - filarial (Wolbachia/Mansonella spp./Zoonotic filariae)
 - STH
 - Other parasites
 - Taenia
 - Other Helminths
 - Malaria and other protozoa
 - Other viral/bacterial infections associated with neurologic disorders
 - Microbiome

Risk Factors

- Human Genetics
 - HLA-restriction
 - Underlying genetic susceptibility loci already identified for other forms of epilepsy
- Parasite genetics
- Autoimmunity/molecular mimicry

Studies in addition

- Animal Models to prove causation
 - Non-human primates
 - Cows
 - Mice (other small animal models)
- Tissue samples/pathology
 - Autopsy (and results)
 - Neuropathology
 - Biopsies when available