

International workshop on onchocerciasis-associated epilepsy
12 – 14 October 2017, Antwerp, Belgium

Recent findings on onchocerciasis-associated epilepsy in Bilomo (Cameroon)

Joseph Nelson Siewe, MD

Global Health Institute, University of Antwerp

Introduction

- Epilepsy: highly prevalent in onchocerciasis endemic zones
- Bilomo (Mbam valley, Cameroon): close to the river banks, abundance of blackflies



Introduction

- Previous studies: 20 years ago, prior to Community Directed Treatment with Ivermectin (CDTi)
- Recent investigation in July 2017

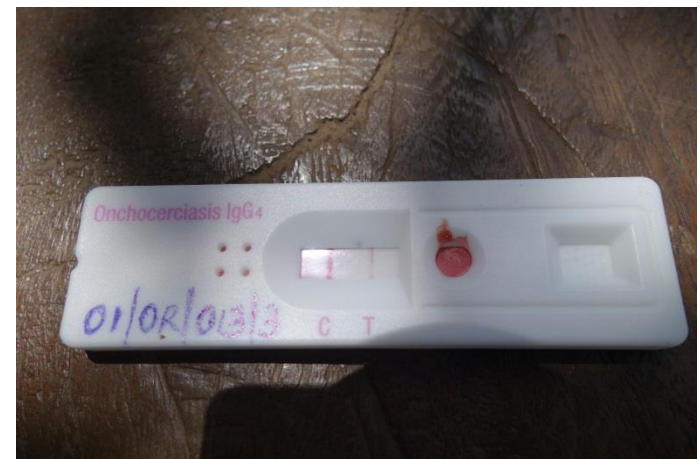


Methodology

- Community-based study
- Door-to-door survey
- Confirmation of cases of epilepsy in homes by neurologist

Methodology

- Ov16 IgG4 testing with Rapid Diagnostic Tests (RDT) for children aged 7-10 years and persons with epilepsy (PWE)



Results

- Study population

Characteristic	Bilomo 1998	Bilomo 2017
Total population	1898	1321

Results

- Epilepsy prevalence

Characteristic	Bilomo 1998	Bilomo 2017
Overall prevalence	4.9%	4.6%
Nodding syndrome	NA	9
Age groups	(n = 93)	(n = 61)
• 5 – 9	3.23%	1.6%
• 10 – 14	20.43%	9.8%
• 15 – 19	39.78%	18.0%
• 20 – 24	25.81%	24.6%
• 25 – 29	4.30%	14.8%
• 30 – 34	4.30%	21.3%
• 35 – 39	2.15%	8.2%
• ≥ 40	0%	1.6%

p = 0.001



Results

- Ov16 testing

	Positive	Negative	Total
PWE	26 (42.62%)	35 (57.38%)	61 (100%)
7 – 10 years	77 (53.10%)	68 (46.9%)	145 (100%)

Conclusion

- Fairly stable epilepsy prevalence
- Age shift in epilepsy prevalence possibly attributable to the protective effect of IVM in younger participants
- Ongoing transmission of onchocerciasis in Bilomo despite two decades of CDTi
- Need to reinforce policies and strategies towards onchocerciasis elimination thereby reducing OAE

THANK YOU