DEMOGRAPHIC AND SOCIOECONOMIC CHARACTERISTICS OF ADULTS WITH NEUROCYSTICERCOSIS-ASSOCIATED EPILEPSY AT THE UNIVERSITY TEACHING HOSPITAL IN LUSAKA, ZAMBIA.

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Introduction

- Neurocysticercosis (NCC) is a helminthic infection caused by the tapeworm *Taenia solium*.
- It is a leading cause of acquired epilepsy, yet diagnosis and treatment remain challenging.
- Several studies have investigated NCC among rural populations in Zambia, but few have targeted urban areas.

Aim

To describe the demographic and socioeconomic characteristics of adults with and without NCC-associated epilepsy at the University Teaching Hospital (UTH) in Lusaka.

Methodology

- ***Study design***: A cross-sectional case-control study
- ***Study site***: University Teaching Hospital
- ***Sample size***: 141 participants

Methodology

Sampling method: Consecutive sampling

Case: Untreated NCC confirmed by neuroimaging

Control :Non-NCC focal epilepsy diagnosed within 6 months

Data collection tool: Interview-guided questionnaires were used to collect data from December 2021 to April 2024

Data analysis: Quantitative analysis

Ethical consideration: Ethical clearance and permission was sought from UNZABREC and NHRA

RESULTS AND DISCUSSION

TABLE 1: DEMOGRAPHIC CHARACTERISTICS

Characteristics	Overall n=141	Cases n=79	Controls n=62	p-value
Male sex, n(%)	95 (67)	62 (79)	33 (53)	**0.002**
Age in years, median (IQR)	41 (32,52)	38 (30,48)	45 (36,63)	**0.001**
Occupation, n(%) Unemployed Trader	 34 (24) 26 (18)	 19 (24) 19 (24)	 15 (24) 7 (11)	 n.s
Level of Education None Primary Secondary Tertiary	 4 (3) 31 (22) 72 (51) 32 (23)	 2 (3) 17 (22) 39 (49) 20 (25)	 2 (3) 14 (23) 33 (53) 12 (19)	 n.s
Living with HIV, n (%)	31/107 (29)	13/60 (22)	18/47 (38)	

Note: Epilepsy risk factors were low in both groups, the highest being family history at 17%

RESULTS AND DISCUSSION

TABLE 2: SOCIOECONOMIC CHARACTERISTICS

Characteristics	Overall n=141	Cases n=79	Controls n=62	p-value
Pork consumption, n (%)	108/139 (78)	65/78 (83)	43/61 (71)	**0.01**
Frequent* pork consumption, n (%)	91/137 (66)	56/75 (75)	35 (56)	**0.025**
Pork source, n (%) Corner shop Informal meat sellers	 34/108 (31) 53/108 (49)	 24/65 (37) 34/65 (52)	 10/43 (23) 19/43 (44)	 **<0.01** **0.005**
Water purification, n(%) None Water filtration	 71 (50) 16 (11)	 44 (56) 4 (5)	 27 (44) 12 (19)	 **<0.01** **<0.01**
Alcohol consumption	47 (59)	24 (39)	23 (37)	n.s

Note: Majority in both groups used piped water (78%) and used either a flush-toilet (46%) or pit latrine (34%), consumed pork more than once a month.

CONCLUSION

- Adults with NCC were predominantly young males with higher exposure to NCC risk-factors such as higher pork consumption from community sellers, drinking untreated water and higher alcohol consumption.

- However, other factors such as drinking water sources, toilet type and occupation were similar between groups.

- Further investigation is recommended to identify community-based preventive measures and understand reasons for the male preponderance of NCC.

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