



INTRODUCTION

Epilepsy contributes to high morbidity among children in developing countries(1). A quarter of all children with epilepsy will be resistant to Anti-Seizure Medications, with associated neurocognitive impairments and higher mortality risk.

OBJECTIVES

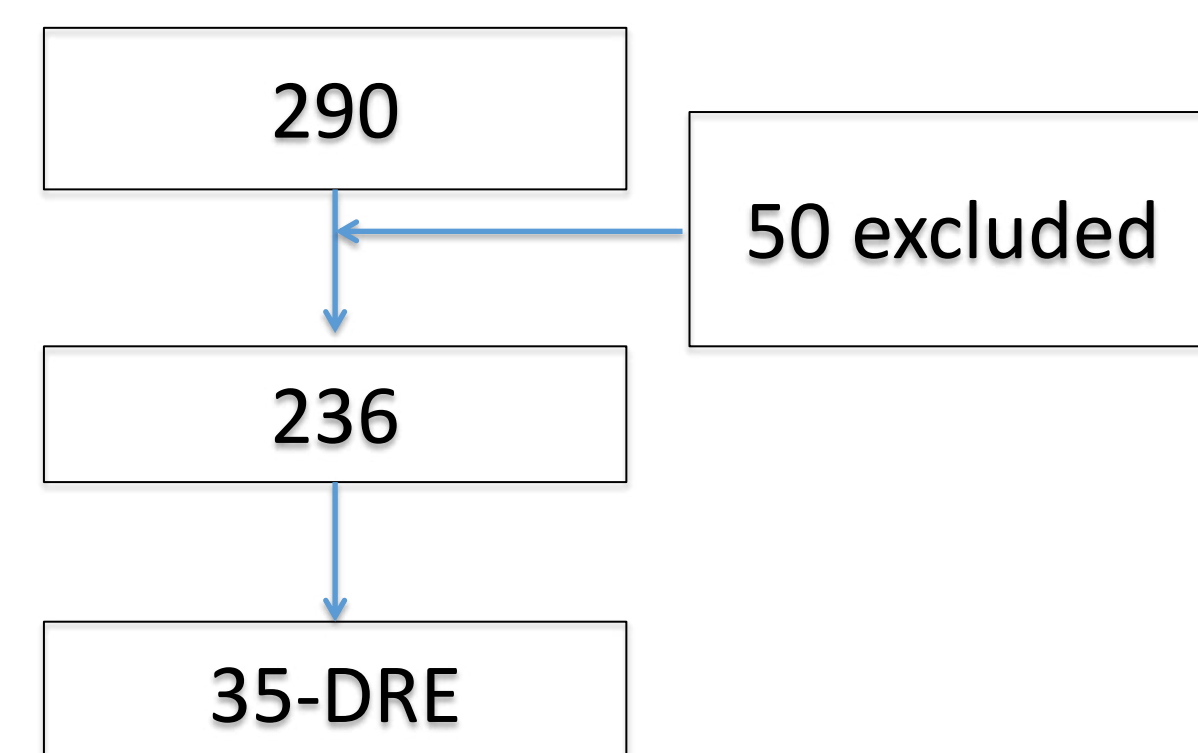
1. To determine the prevalence of Drug resistant Epilepsy (DRE) among patients with epilepsy aged between 3 months and 15 years attending the pediatric neurology clinic at Muhimbili National Hospital (MNH), Dar es Salaam Tanzania
2. To determine clinical patterns of epileptic seizures among patients with DRE
3. Determine the factors associated with DRE.

MATERIAL AND METHOD

A cross sectional study was conducted at MNH pediatric neurology clinic between June 2020 to June 2021. A total of 232 children with epilepsy, aged between 3 months to 15 years and who had been on treatment with Anti Seizures Medications (ASM) for at least 3 months, were enrolled.

- ✓ Demographic characteristics, perinatal history, detailed history of the seizures and semiology, drug history, MRI and EEG results were obtained from caregivers and patients electronic medical records.
- ✓ Seizures and epilepsies were classified using 2017 International League Against Epilepsy (ILAE) classification(3).
- ✓ DRE was defined as failure to achieve sustained remission after adequate trial of two tolerated and appropriately chosen ASM(3)
- ✓ Logistic regression was used to determine predictors of DRE.

FLOW CHART



RESULTS.

- ✓ The prevalence of DRE was found to be 14.8% (95% CI; 10.6-20%).
- ✓ Out of the 35 patients with DRE, 60% had generalized epilepsy and almost a quarter had a diagnosis of an infantile or childhood onset epilepsy syndrome, (LGS) being the common
- ✓ Structural abnormalities on brain MRI were seen in almost 80% of all patents with DRE, cystic encephalomalacia (34% ) being the commonest.
- ✓ Higher proportion of patients with DRE had history of Status epilepticus, Developmental delay and MRI abnormalities

Independent factors associated with DRE among patients with epilepsy attending pediatric neurology clinic at MNH.

Variable	Category	Univariate analysis			Multivariate analysis		
		COR	95% CI	P-value	AOR	95% CI	P-value
History of resuscitation	Yes	1.15	<0.01	0.1-0.2	1.96	0.2-15	0.52
	No	Ref					
Number of seizures at onset	>10	4.82	2.2-10	<0.001	4.2	1.8-9.6	<0.001
	≤10	Ref					
Seizure onset ≤1month	Yes	2.83	1.3-5.9	0.006	3.5	1.2-10	0.022
	No	Ref					
Delayed Milestones	Yes	2.3	1.15-5.34	0.02	2.2	0.8-6	0.20
	No	Ref					
History of status Epilepticus	Yes	2.2	1.0-4.6	0.036	1.5	0.6-3	0.17
	No	Ref					

CONCLUSION

- Prevalence DRE was high from this study setting.
- History of status epilepticus, developmental delay and MRI abnormality was observed more on the DRE group
- Patients with neonatal onset seizures and high initial seizure frequency should be followed up closely, for early diagnosis of DRE.

REFERENCES

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3. Kwan P, Arzimanoglou A, Berg AT, Brodie MJ, Hauser WA, Mathern G, et al. Definition of drug resistant epilepsy: Consensus proposal by the ad hoc Task Force of the ILAE Commission on Therapeutic Strategies. *Epilepsia.* 2010.

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