

# Acute symptomatic seizures associated with neurocysticercosis: A community-based prevalence study and comprehensive rural epilepsy study in South India (CRESSI)

JMK Murthy, S Vijay, \*C Ravi Raju, J Thomas

*The Institute of Neurological Sciences, CARE Hospital, Hyderabad, India; \*Byrraju Foundation, Hyderabad, India*

**Objective:** Neurocysticercosis is a common cause of seizure disorder in developing countries endemic to neurocysticercosis. Seizures associated with the transitional phase of neurocysticercosis are the consequence of acute inflammatory response of the brain probably to the antigen liberated, and should be considered as provoked or acute symptomatic seizures. This study is to determine the prevalence of seizure disorders associated with this lesion in a rural community.

**Methods:** The prevalence of epilepsy was studied in 22 villages, geographically clustered in one region of the West Godavari district of Andhra Pradesh, a province in South India, by a door-to-door survey. All cases ascertained clinically had a plain and contrast CT scan. The imaging criteria for the diagnosis of neurocysticercosis were that proposed by Del Brutto *et al.*<sup>1</sup> Clinical characteristics and seizure remission patterns were studied.

**Results:** Of the 74,086 people surveyed, 462 people were identified to have 2 or more seizures, a crude prevalence of 6.2 per 1000 population. At the time of the analysis 379 patients had a CT scan and 11 (3.3%) scans, showed imaging features consistent with neurocysticercosis in the transitional phase: single in 8, multiple in 2, and one active and one transitional cysts in 1. This lesion accounted for 7.2% of identified aetiology. Partial motor seizures with or without secondary generalisation were the seizure type in all the patients. Seizures in a cluster either at presentation or during the course of the illness was the feature in 7 (64%) patients. Seizure remission was achieved with monotherapy in all the patients. A repeat CT scan at an interval of 6 months showed resolution of the lesion in 2 patients and both of them were seizure free after antiepileptic withdrawal.

**Conclusion:** Prevalence studies of epilepsy in countries endemic to neurocysticercosis may be contaminated by the seizure disorder associated with the transitional phase of neurocysticercosis which represents acute symptomatic seizures, thus contributing to high rates.

## Reference

1. Del Brutto OH, Rajshekhar V, White AC Jr, *et al.* Proposed diagnostic criteria for neurocysticercosis. *Neurology* 2001; 57(2): 177-83.

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