## Correspondence:

# A seizure with a spot: a study of patients with mesial temporal lobe epilepsy

One of the convulsive disorders, presenting to physicians with complex and bizarre behaviour is Mesial temporal lobe epilepsy MTLE.[1] Refractory seizures especially complex partial seizures (CPS) should make the physician think of this possibility. Early specific investigations for the disorder therefore can prevent the delay and its consequences to of this treatable condition. MTLE is associated with focal seizures and dyscognitive features. It is generally refractory to treatment with anticonvulsants but responds extremely well to surgical intervention. There is a paucity of data regarding the disease in the state of Andhra Pradesh. We studied the 20 cases with mesial temporal epilepsy admitted to the tertiary care Government general hospital, Guntur during the period 2010 to April 2012.

The median age at presentation was 24.5 years; there were 8 males. The most frequent presenting complaint was focal seizures with dyscognitive features (n=6), followed by generalized seizure disorder (n=4). Very few patients had history of febrile seizures (1/20) or vaccination. (1/20). Most of cases (12/20) manifested with right sided mesial temporal lobe sclerosis. Gliosis and atrophy of the temporal lobe were the predominant findings on magnetic resonance imaging (MRI) of the brain. Majority (13/20) of patients were on polytherapy before surgery. Half of the patients (n=10) showed epileptiform discharges in the temporal brain in the inter ictal period.

The human mesial temporal lobe is composed of the hippocampus, the amygdala and the parahippocampal region. The parahippocampal region comprises several cortical regions grouped together on the basis of their unique laminar organization and connectivity. In its anterior portion, the parahippocampal region includes the entorhinal cortex (EC) and the perirhinal cortex (PC); its posterior portion is composed of the posterior parahippocampal cortex (PPC).[2] Lesions in these areas manifest a kaleidoscope of seizure disorders. Our study showed both focal seizures with dyscognition and generalized seizures.

The proportion of seizure semiology with focal seizures with dyscognition (n=6) and generalized seizure disorder (n=4) observed in the present study is similar to observations reported in another study[3] where CPS and GCS were observed in 10% each of patients. History of febrile seizures observed in one of our patients, with EEG temporal localization and the sclerotic findings in MRI brain are similar to the observations in another study.[4]

In the present study atrophy, gliosis, calcification and ischaemic foci in the hippocampus were observed. Similar findings were documented in another study.[5]

Epilepsy outcomes following temporal lobe surgery have been studied extensively in recent years. A systematic review and meta-analysis of studies[6] with 1-5 years of follow-up reported freedom from disabling seizures in 63.2% of patients [95% confidence intervals (CI) = 60-66] and a trend for better outcomes in more

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recent reports. All the patients in our study had undergone amygadalo hippocampectomy and had excellent post-surgical remission of seizures requiring only a single antiepileptic drug therapy. There were no residual neurological deficits.

The frustration of the clinician and the patient due to the refractory nature of seizures in spite of prolonged treatment creates confusion and distrust, which further complicates the scenario.

Early focussed evaluation of every patient with focal seizures with dyscognitive symptoms by a neurologist and use of laboratory investigations, like EEG, MRI brain epilepsy protocol can be helpful in detecting changes in the hippocampus specific to MTLE, there by facilitating early diagnosis.

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