SUMMARY

Background: Epilepsy is a common disease and cognitive impairment is a major complication of the illness. The assessment of cognitive functions in patients with epilepsy will greatly help the physicians to counsel these patients on their academic, social and occupational needs. This study was designed to assess the patterns of cognitive impairment of patients with epilepsy in Ile-Ife, Nigeria.

Methods: Forty-one patients with epilepsy were studies along with forty-one age, sex and level of education matched healthy controls. A questionnaire was developed and applied to all subjects, history taken from patients and eye witness. Emphasis was placed on socio-demographic data, information on epilepsy variables. Detailed general physical and neurological examination was carried out on each subject.

The cognitive function of each subject was assessed with the aid of modified community screening interview for Dementia (CSID) and Fepsy (Iron psychology) reaction times. The domains of Language, Memory, Orientation, Attention and Calculation and Praxis were assessed by the CSID while the Fepsy (Iron psychology) was used to assess the psychomotor speed by measuring the Auditory, Visual and Binary choice reaction times.

All the patients also subsequently had electroencephalography done and the EEG findings were noted. SPSS statistical package was used to analyze the data.

Result: The mean age of PWE in years was $28.32 \pm 9.22$ while that of the controls was $25.95 \pm 7.72$. The PWE performed poorly as compared to the controls ($P < 0.05$) in the domain of language, memory, attention/calculation and praxis while there was no statistically significant difference between the PWE and controls in Orientation function. There was statistically significant difference only in the Binary Choice task on Fepsy test between the PWE and controls.
The duration of epilepsy and the duration of therapy had significant negative impact on all the cognitive domains of the CSID and only on the binary choice task of Fepsy test (P < 0.05) while the other seizure variables such as type of drug therapy, and type of AED drugs that patients are on does not have significant effect.

The type of EEG pattern (Normal and abnormal) the patient had did not have influence the outcome of the cognitive performance in the PWE in this study (P > 0.05).

**Conclusion:** This study has shown that PWE had significant cognitive impairment compared with controls and duration of epilepsy and duration AED therapy had significant negative impact on cognitive performance in PWE. Also, the EEG type (Abnormal or Normal) in PWE did not correlate with their cognitive performance.