



WHEN TO STOP ANTIEPILEPTIC DRUGS TREATMENT AT 2 YRS OR 4 YRS AFTER CESSATION OF SEIZURES ?

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ABSTRACT Antiepileptic drugs were stopped in patients belonging to the age group between 13 to 18 yrs who were known to be suffering with epilepsy, because they were seizure free since two years and above. Complex partial seizures which were controlled with antiepileptics carried good outcome, afebrile seizures had unfavorable results. Younger age of onset of seizures who remained seizure free for two years after the last seizure have lead a normal life. In summarizing, patients who were seizure free in the preceding two years falling in the above age groups (13 to 18 years) had reasonably and safely stopped treatment with antiepileptic drugs without relapse.

KEYWORDS : Epilepsy –Antiepileptic drugs-Discontinuation when ?

MATERIAL AND METHODS.

In our study of 37 patients falling in the age groups of 13 to 18 years from the years 2013 to 2019 whose antiepileptics drugs were stopped since 9 months because they were seizure free in the previous two years. Seizures were classified as generalized, absence seizures, atypical absences, simple partial and complex partial. Only 10 patients had more than 20 tonic-clonic seizures. 8 of the above patients had typical febrile seizures. 11 of the remaining 19 patients had atypical febrile seizures. Simple febrile seizure patients were excluded. All patients whose seizures were controlled for three or more years were excluded. Eleven patients with atypical febrile seizures with fever were included. Necessary permissions were obtained from the families for enrolment of patients in this study. Patients who did not want to discontinue the antiepileptics despite seizure free for a longtime were advised to continue the medications. In above 37 patients 24 are male patients, 13 were female patients. All these patients were taking antiepileptics for 3 to 5 yrs and were seizure free for the past two and half years.

INVESTIGATIONS:

Electroencephalograms (EEG) were serially obtained for all patients before initiation of antiepileptic therapy and at the end of two and half years when they were seizure free. All EEGs showed spikes with generalized or focal slowing before institution of antiepileptic therapy. The EEGs taken in seizure free state showed (at the end of two and half years when there were no seizures) less slowing and less number of spikes. All EEGs were taken in the standard ways during sleep, photic stimulation and hyperventilation.

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Followup:

All patients were followed up annually for 3 to 6 yrs, and remained seizure free after stopping the drugs at the end of two years of treatment. There were no recurrence of seizures among those stopped therapy after two years. During analysis of data, the length of followup period after stopping the antiepileptics had the key influence on the recurrence. Stastically P values were two-tailed (left tail test and right tail test, see Fig 1).

RESULTS:

29 (80%) of the 37 patients were seizure free after stopping the drugs at

the end of two years, remaining 8 patients were seizure free at the end of thirty months of therapy. There were no differences between male and female patients. All patients were maintained and continued on medications viz. Phenytoin sodium, Levetiracetam, Frisium in optimum doses.

There was no significant differences in outcome of patients with epilepsy of idiopathic origin and secondary causes viz., trauma, TB meningitis, infections. Common causes of seizures in the age group of 13 to 18 yrs like genetic disorders, brain trauma, illicit drug use, brain tumour were not included. Type of seizures viz., generalised tonic-clonic, absences, partial seizures had no effect on the final outcome. Complex partial seizures had good prognosis, atypical febrile seizures had bad prognosis. The mean age of onset of seizure was 9 yrs, mean years of age who were seizure free was about 5 yrs. Younger age of onset of seizures had good chances of remaining seizure free in later life. The mean duration of antiepileptic therapy was 5.1 years. Improved patients without spikes in EEGs had good prognosis. Patients with complex partial seizures had good prognosis, patients with atypical febrile seizures had bad prognosis ($P < 0.05$). Before stopping treatment EEGs were obtained in all patients and the EEGs were normal, latter in the followup - EEGs without spikes and slowing had good prognosis, where as EEGs with spikes suffered relapses.

DISCUSSION:

It's the group work of many medical and paramedical personnel of this hospital. 80% (29) patients remained seizure free when the drugs were discontinued two years after the last seizure. EEG is a best predictor of the outcome (Table 1). Best results were obtained with complex partial seizures, atypical febrile seizures suffered high incidence of recurrence. Younger age of onset of seizure had good prognosis., the causes and number of tonic – clonic seizures did not influence the outcome. Those with two episodes / attacks of seizures, the chances of free from seizures subsequently were more. There was no incidence of status epilepticus.. Previously stoppage of antiepileptic drugs after four years of last seizure was the standard approach. Even though this study group was small, we confidently recommend discontinuance of antiepileptic drugs two years after the last seizure, because majority (all 37 patients) were remained seizure free after discontinuation of antiepileptics as evidenced by serial Electroencephalographic tracings during regular follow-ups., which did not show spikes, slowing and focal changes.

Table 1

Electroencephalographic characteristics of total patients (37)	
Normal tracing	6 patients
Abnormal tracings	31 patients
Features	
Slowing	26 patients
Spikes	5 patients
Focality	6 patients

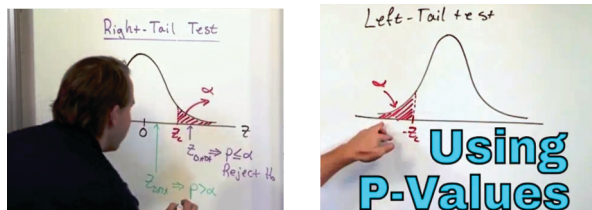


Figure 1

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