Epilepsy profile in a neurology clinic in Malatya

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Epilepsy is one of the common neurological disorders that varies greatly in its clinical features, electroencephalographic (EEG) findings and prognosis. Epidemiological studies enlighten us about these features, but there is still a lack of "regional profiles of epilepsy" in Turkey.

We reviewed the differential diagnosis, seizure types, electroencephalographic findings and prognosis in 143 patients that were admitted to İnönü University Medical School, Neurology Department between April 1993- April 1994, for episodic loss of consciousness. [Journal of Turgut Özal Medical Center 2(1):14-16,1995]

Key Words : *Epilepsy, clinical features, electroencephalographic findings, prognosis*

Malatya'da bir nöroloji kliniğinde epilepsi profili

Epilepsi en sık karşılaşılan nörolojik hastalıklardan biridir. Epidemiyolojik çalışmalar, hastadan hastaya çok değişebilen klinik belirtiler, elektroensefalografik (EEG) bulgular ve prognoz hakkında bilgilenmemize yardımcı olur. Ancak ne yazık ki, Türkiye'de bu konuda yeterli çalışma yoktur.

Bu çalışmada İnönü Üniversitesi Tıp Fakültesi, Nöroloji Anabilim Dalı'na bilinç kaybı yakınması ile başvuran 143 hastanın ayırıcı tanıları ile epilepsi tanısı konan hastaların nöbet tipleri, elektroensefalografi bulguları ve izlem sonuçları retrospektif olarak gözden geçirilmiştir. [Turgut Özal Tıp Merkezi Dergisi 2(1):14-16,1995]

Anahtar Kelimeler :*Epilepsi, klinik belirtiler, elektroensefalografik bulgular, prognoz*

Epilepsy is one of the most common neurological problems in the population. Its clinical features, etiology, association with other diseases and prognosis varies greatly in each patient. The differential diagnosis encompasses all causes of transient alterations of consciousness.

Documentation of the clinical and electrophysiological findings as well as the follow-up findings of patients who admit for epilepsy suspicion is important for understanding the limits of the condition. It is also important for assessing the effectiveness of the treatment and planning of the provision of health care.

In the present study, we report the clinical features of 143 patients who were admitted to İnönü University School of Medicine Neurology Department for transient alterations of consciousness.

MATERIAL AND METHOD

Medical records of all patients who were admitted to the neurology clinic of İnönü University School of Medicine, Malatya, Turkey, between April 1993- April 1994, for transient alterations of consciousness were reviewed. 143 patients (86 male, 57 female), ages ranged between 20 days- 72 years (mean: 20. 1 years), were included in the study. The patients with psychogenic attacks were not in the field of interest of this study and were not included in the present study.

Age, sex, differential diagnosis, antiepileptic treatment and prognosis of the patients were analyzed retrospectively. The differential diagnosis was based on the history, neurological examination, laboratory examinations, electroencephalographic (EEG)

findings, and cranial CT in some of the patients. An additional EEG recording was obtained in 12 patients following 24-hours sleep deprivation.

Classification of the seizures in epileptic patients were done according to the International Classification of the Seizures (ICES) that was proposed in 1981[1].

RESULTS

Epilepsy diagnoses were made in 125 of the 143 patients. The diagnoses were as follows in the remaining 18 cases: febrile convulsion in 5, syncope in 7, complicated migraine in 4 and cerebrovascular accident in 2 patients.

The onset of seizures was before age of 20 in 73 patients (58.4%). The seizures in epileptic patients were classified as is shown in Table I. Tonic-clonic seizures were seen in the majority of the cases (66 of 125 patients) (53.8%) and there was a male predominance in the whole group (Table II).

Epileptic activity was seen in the routine EEGs of 59 of 125 patients (48.4%) and epileptic activity was observed in 8 of 12 patients, who had a second EEG that was performed following 24-hours sleep deprivation. There was not any significant difference between seizure types according to abnormal EEG findings.

Monotherapy was used in 102 (81.6%) and combined therapy in 7 patients (4.8%). 16 patients (13.6%) refused to use any medication. Four of these 16 patients were pregnant and 12 preferred to have a second consultation before starting to have an antiepileptic medication.

Minimum follow-up was 4 months and the overall benefit from the treatment was 89.1% in the treated patients. Seizures ceased in 74 patients (72.5%), diminished in severity in 17 patients (16.6%) following antiepileptic treatment and remained the same in 2 patients (1.9%). 36 patients (9%) did not return for follow-up examinations.

DISCUSSION

An accurate diagnosis of epilepsy in patients with paroxysmal alterations of consciousness is the most important part of a neurologic evaluation in practice. An epileptic seizure is an intermittent, stereotyped, disturbance of behavior, emotion, motor function or sensation which on clinical evidence results from cortical neuronal discharges[2]. The diagnosis of epilepsy is based on a detailed description of the

events during the alteration of the consciousness. Other considerations that should be addressed for transient alterations of consciousness are syncope, psychogenic attacks, transient ischemic attacks, migraine, narcolepsy and hypoglicemia[3].

Table I. Classification of the seizures according to EEG findings

Seizure type/EEG findings	abnormal trace	normal trace
Tonic-clonic	36	30
Complex partial	17	20
Secondary generalized	5	5
Petite mal	4	-
Myoclonic	3	1
Simple partial	-	1
Atonic	2	-
Focal motor	1	-

Table II. Classification of the seizures according to sex

Seizure classification/sex	male	female	TOTAL
Tonic-clonic	43	23	66
Complex partial	16	21	37
Secondary generalized	3	7	10
Petite mal	1	3	4
Myoclonic	4	-	4
Simple partial	1	-	1
Atonic	1	1	2
Focal motor	1	-	1
Non-epileptic events	11	7	18

Diagnostic errors and lack of agreement on definitions and classification of seizures cause confusion in epidemiologic studies. In the published data, its incidence rates vary between 11/100000 to 134/100000 and prevalence rates vary between 1.5/1000 to 31/1000[1]. In the Rochester Minnesota study, the combined rate of recurrent, febrile and single convulsions was as much as 120/100000, which was found as 54/100000 when only recurrent seizures were included[5]. 18 of 143 patients (12.6%) were non-epileptic events in the present study, which makes as much as 1/8 of the whole group, even though the psychogenic attacks were excluded at the beginning.

The EEG may provide valuable information about the clinical diagnosis and help in classifying the epilepsy. However, no specific epileptic abnormalities may be seen in about half of the epileptic patients in a single routine EEG and it may remain normal in spite of repeated recordings in 15% of the epileptic patients[3,6]. Epileptic activity was seen in 48.4% of the epileptic patients in the present study, which is compatible with the literature[3,6]. Although there are some exceptions[5,7], many previous studies have found

the majority of patients to have generalized seizures and a male predominance[1,8], as was observed also in our cases.

Patient compliance with the antiepileptic treatment, in which physicians have a considerable responsibility, is very important for a convenient outcome. Follow-up examinations could be performed in 91% of the treated patients and overall benefit was 89.1%.

Epidemiological research on epilepsy has been developed relatively recently and most of the studies are not population based studies. Epidemiologic studies provide important information about the natural history, seizure types and electrophysiological findings in different populations, limitations of the antiepileptic treatment and prognosis[3]. Unfortunately we do not know much about epidemiologic characteristics of epilepsy in Turkey. It is clear that these results that give the profile of convulsive disorders in our department, can not be generalized to the whole region. Countrywide epidemiological studies should be started and all physicians that were interested in epilepsy should be included. Documentation of the previous cases and add-up the new cases in standard, widely accepted protocols will provide meaningful comparisons between different geographical regions either in Turkey and other countries.

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