THE COURSE OF PREESISTING EPILEPSY ETIOLOGY IN OLDER AGE

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Background: Age peaks of incidence for epilepsy occur in the first years of life and in the later years, reflecting the multiple different etiologies found in the two extremes.

Obiective: The aim of this study was to analyze the course of epilepsy in patients reaching age 70 years and beyond and to analyze changes in the management of these patients.

Methods: we retrospectively analysed data of 2423 patients referred to our Centre from 2005 to 2012. Informations on socio-demographic characteristics, neurologic examination, etiology, seizure type, EEG, neuroimaging, treatment and clinical course of epilepsy were obtained by review of their medical records and interview of the patient and/or a relative. A total of 286 patients (168 females (58.74%) and 118 males (41.25%) with a mean age of 72.4 ± 7.4 were eligible for the study. Duration of epilepsy ranged 2-15 years. 123 patients had focal onset seizures with secondary generalization, 86 had focal seizures without generalization, 51 patients had primary generalized epilepsy, and 26 had unclassified epileptic seizures.

Results: 102 (36.66%) of the 286 patients showed a decrease in seizure frequency, 45 (15.73%) had an increase in seizure frequency, and 138 (48.25%) remained unchanged. There was a tendency for seizure frequency to decrease in patients with focal seizures and a tendency for seizure frequency to increase in patients with primary generalized epilepsy. This could be attributed to addictionally acquired diseases (metabolic, cardiac etc). These diseases and the necessitated medical treatment may alter pharmacokinetics of antiepileptic treatment. Also, structural changes within the brain may have an influence even upon generalized epilepsies. Furthermore the incidence of side effects of antiepileptic drugs was 29.72% (85/286 patients). 7 had renal and 4 had hepatic problems. In the remaining there were changes in resorption, protein imbalance, or disturbances of body fluid distribution. Direct influence of other medications, especially with antipsychotic drugs or antidepressants, were seen in 3 patients.

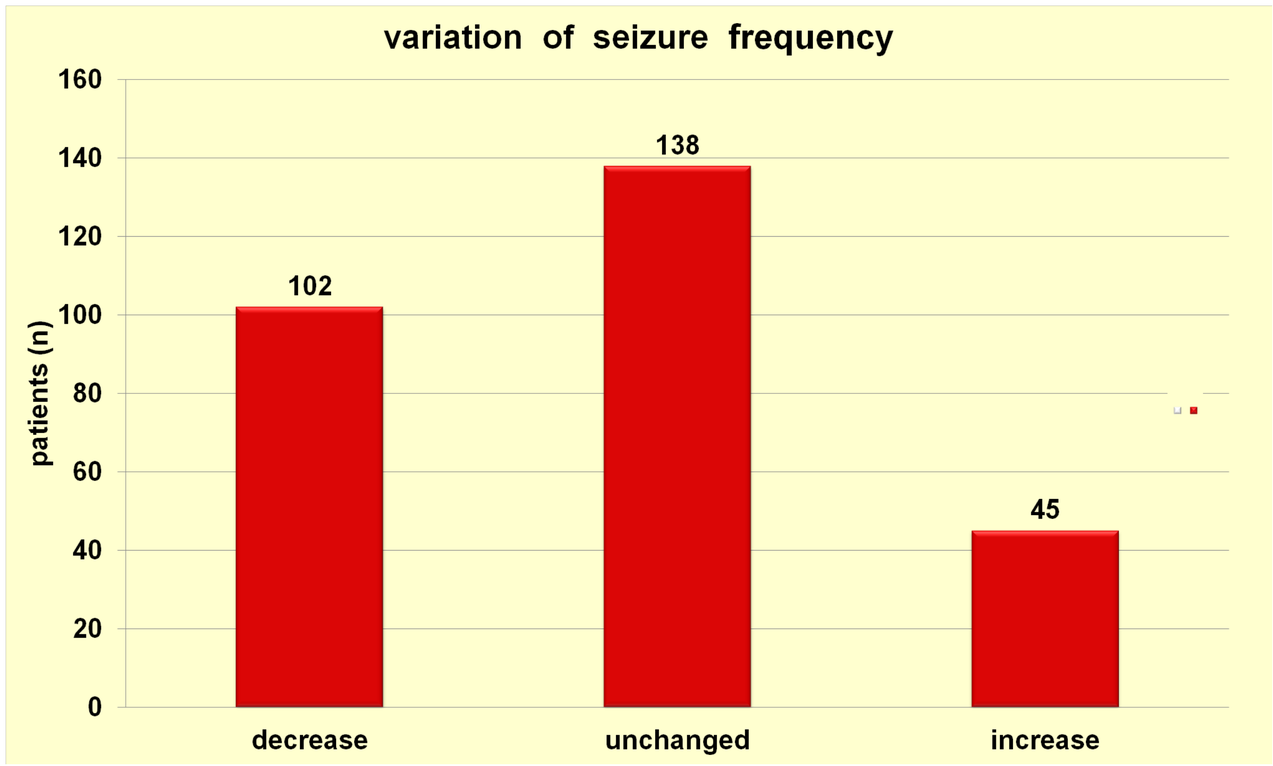
Conclusions: Our results showed a tendency for primary generalized epilepsies to worsen in older age. This could be attributed to several causes including structural changes in the brain. The underlying mechanisms of these effects remain to be defined. Despite the small number of patients in this study and other previously published studies, this analysis stresses the necessity of close monitoring of patients with epilepsy as they grow old.

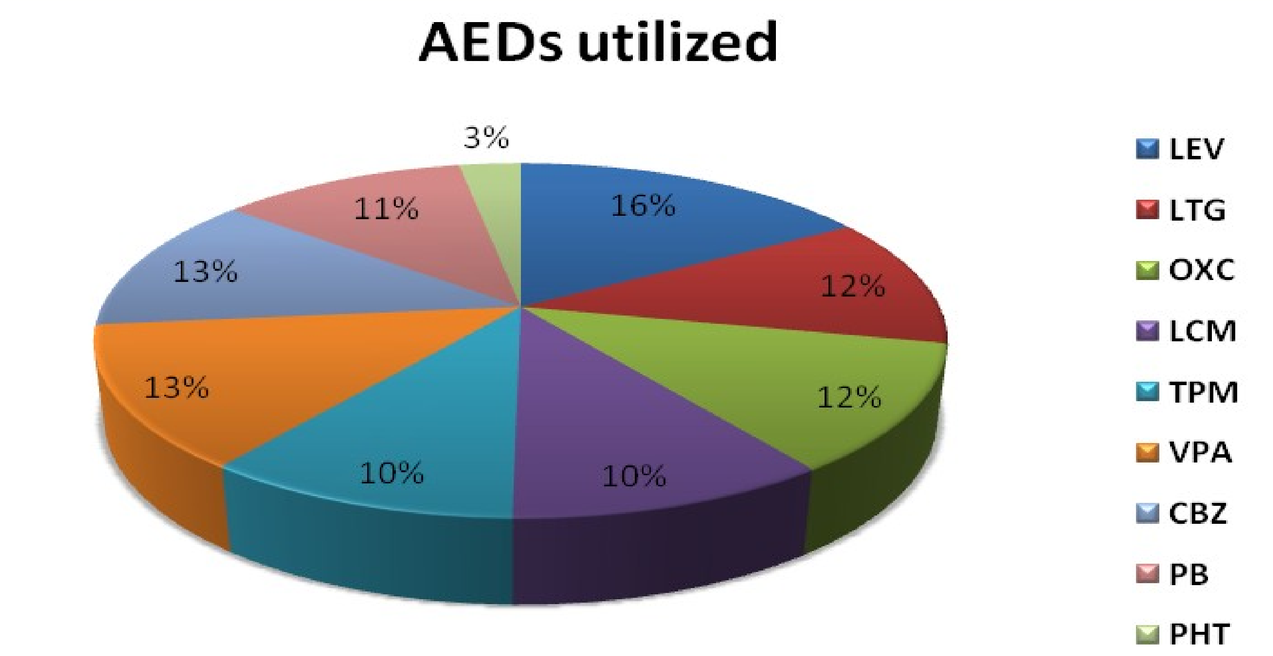
MALES (n,%)	118 (40.15)
FEMALES (n, %)	168 (59.84)
MEAN AGE (yr, ± SD)	72.4 (± 7.4)
MEAN EDUCATION (yr, ± SD)	6.2 (± 2.9)
MEAN EPILEPSY DURATION (yr, ± SD)	7.9 (± 12.9)
TOTAL SEIZURE FREQUENCY (mean,±SD)	3.5/month (± 2.9)

Table 1. Demographic characteristics on trial participants (N=286)

Parameter	Value	
EPILEPSY SYNDROME CLASSIFICATION, n (%)		
Simple partial	86 (30.06)	
Complex partial	188 (65.73)	
Unknown	12 (4.19)	
EEG		
Interictal epileptiform discharges	176	
Focal abnormalities	68	
Normal	42	
ANTIEPILEPTICS /AEDs), n (%) pts, range dose (mg/die)		
Levetiracetam	134 (46.85)	500-1000
Valproate	36 (12.58)	500-1000
Lamotrigine	39 (13.63)	50-100
Topiramate	32 (11.18)	25-100
Phenobarbital	18 (6.29)	50-100
Oxcarbazepine	27 (9.44)	300-600
CONCOMITANT MEDICATIONS, n (%) pts		
Cholinesterase Inhibitors	102 (35.66)	
Anti-hypertensives	148 (51.74)	
Antidiabetics	94 (32.86)	
Lipid-reducing agents	98 (34.26)	
Diuretics	86 (30.06)	

Table 2. Epilepsy characteristics





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