



Epilepsy prevalence and trends in antiepileptic medication use among children in Turkey between 2015-2020

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INTRODUCTION

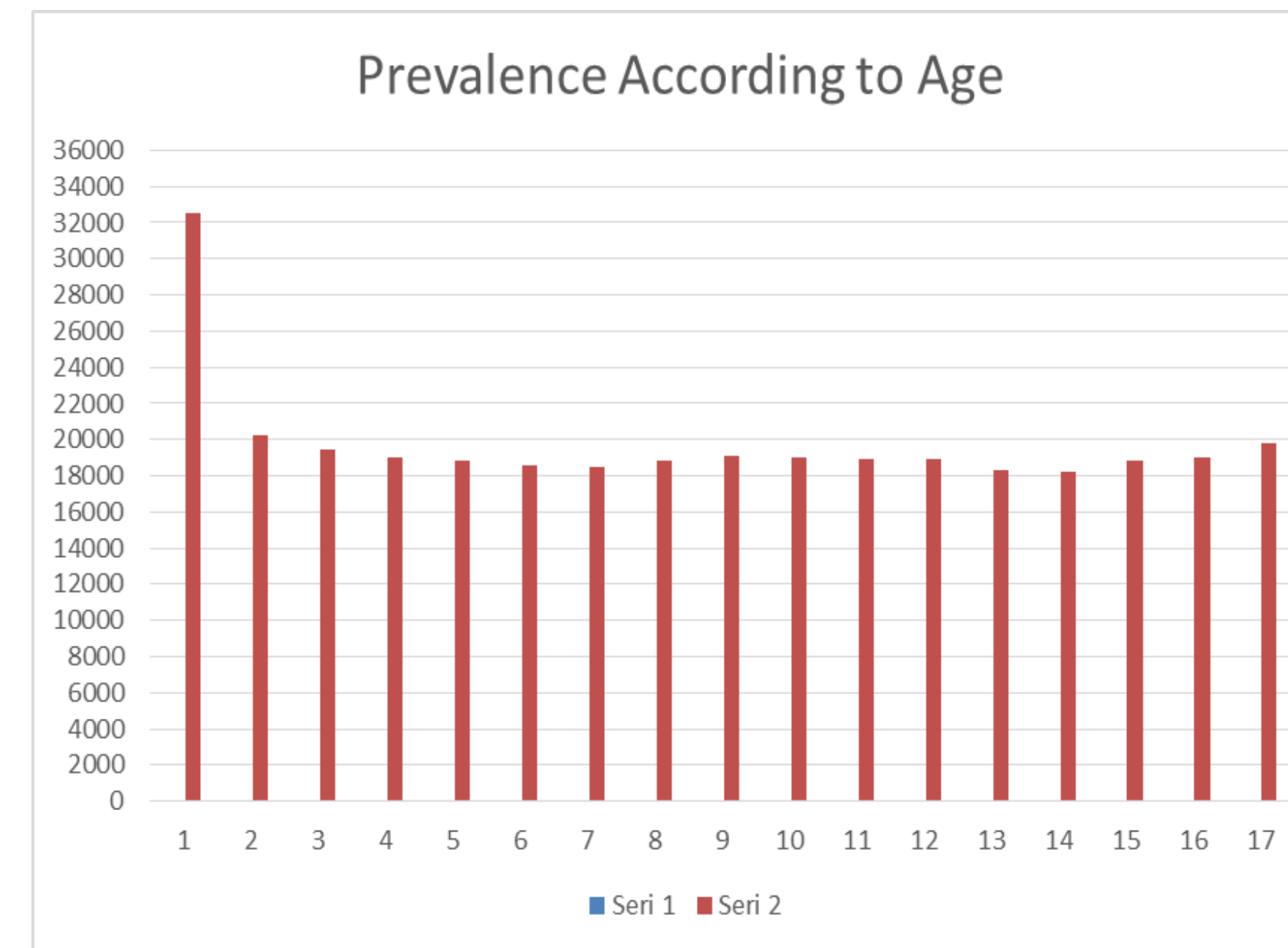
- Epilepsy is the primary cause of neurologic morbidity and although its mortality decreased in the last 30 years; the disease prevalence remains stable globally.
- The point prevalence of active epilepsy in Turkey among children under age 16 years was reported 8 per 1000 children in 1996.
- Comorbidities such as mood disorders, autism, ADHD are more common in children with epilepsy.
- Most frequently prescribed AEDs in the last 10 years for children were valproate, lamotrigine, and levetiracetam.
- Patients with uncontrolled seizures or using multiple AED have higher anxiety and depression scores.

MATERIALS and METHODS

- Children between ages >1 month and <18 years with an ICD code for epilepsy (ICD-10 40.0-40.9) between 2015-2020 were identified.
- Patients who are not prescribed at least one AED were excluded.
- AED use was identified using ATC codes for 22 antiepileptic drugs.
- Comorbidities were identified using ICD codes; anxiety (F41.0, F41.1, F41.3, F41.8, F41.9), depression (F33.0, F33.1, F33.2, F33.3, F33.4, F33.8, F33.9), cerebral palsy (G80.0, G80.1, G80.2, G80.3, G80.4, G80.8, G80.9), ADHD (F90.0, F90.1, F90.2, F90.8, F90.9) and autism (F84.0)
- All baseline data for the patients were obtained through Turkish Ministry of Health database.
- All statistical analyses were performed using the SPSS, version 21. Descriptive statistics were presented as mean and standard deviation or frequencies and percentages.

RESULTS

- 336.182 patients with an ICD code G.40 using at least one antiepileptic drug were identified.



Antiepileptic drugs	N	%
Valproic acid	187.877	55,89%
Levetiracetam	187.700	55,83%
Carbamazepine	63.423	18,87%
Phenobarbital	63.080	18,76%
Clonazepam	38.218	11,37%
Topiramate	37.228	11,07%
Oxcarbazepine	30.105	8,95%
Lamotrigine	27.909	8,30%
Vigabatrin	14.556	4,33%
Phenytoin	12.873	3,83%

Comorbidities	N	%
Anxiety	59.250	18
ADHD	50.210	15
Depression	1.913	0.5
Cerebral palsy	101.729	30
Autism	15.988	5

CONCLUSION

- In conclusion, epilepsy is still the primary cause of neurologic morbidity and research on the cause and effect relationship between epilepsy and psychiatric comorbidities could be elucidative.
- Our study could be considered as the largest prevalence study conducted in Turkey concerning childhood epilepsy in the last decade.

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