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## **Epilepsy and EEG findings in children with anomalies of the corpus callosum**

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**A**nomalies of Corpus Callosum (ACC) including agenesis and hypogenesis are common congenital brain malformation that may result from genetic or environmental factors. Epilepsy is one of the most common findings in structural brain malformations. Seizure frequency has been reported in small samples of cases. We studied 71 children with ACC with and without epilepsy in order to assess clinical and electroencephalographic features to determine the frequency of seizures and to identify putative electroencephalographic and seizure characteristics useful to address the diagnosis. We investigated 71 pediatric and adolescent patients referred to Pediatric Neurology Department and had the diagnosis of the ACC. Of 71 patients that were reviewed, 12 patients had agenesis of the corpus callosum while 59 had hypogenesis of the corpus callosum. Forty-two (59%) patients had epilepsy and 54 patients had electroencephalography. Of the 42 epileptic patients, 10 had agenesis of the corpus callosum and 32 had hypogenesis of the corpus callosum. Twenty of 42 (48%) epileptic patients were responsive to antiepileptic drug and 22 (52%) children were intractable epileptic patients. Of the 54 EEG recordings, 8 were normal while 46 were abnormal. Percentage of the intractability of epilepsy in patients with hypogenesis and agenesis of the corpus callosum were 40% and 90%, respectively. Our study showed that the high incidence of epilepsy in children with anomalies of corpus callosum. Moreover intractable epilepsy had a higher incidence in patients with agenesis of the corpus callosum.

### **Biography**

Bulent Unay has completed his PhD from Gulhane Medical School and currently working as Child Neurology Professor in Department of Pediatrics. He had the position of Research Fellow in Epilepsy Center, Children's Hospital; University of Pittsburgh from 2004 to 2005. He is the Director of Department of Child Neurology, Gulhane Medical School, Turkey. He has published more than 60 peer reviewed medical articles and book chapters on many topics including epilepsy, evoked potentials and cerebral palsy.

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