**II D1**  
**EEG in adult-onset idiopathic generalized epilepsy**

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**Purpose:** It remains controversial whether adult-onset idiopathic generalized epilepsy (IGE) is a distinct syndrome or a continuum among IGE syndromes. EEG is the only known biological marker of IGE, and helps differentiate many of its classical subsyndromes of IGE. In this study we looked for the differences in the EEG findings of IGE of classical adolescent-onset versus adult-onset that may suggest syndromic heterogeneity.

**Method:** 76 patients (47 adolescent-onset IGE, 29 adult-onset IGE) with a clinical and EEG diagnosis of IGE were included. We defined IGE with age at onset 11-20 years as adolescent-onset IGE and age at onset 20 years or after as adult-onset IGE. Patients with first decade onset of seizures, delayed EEGs, and no EEG available for review were excluded. The first EEG was performed within 24 hrs of the seizure, and if negative, a sleep deprived EEG was done. All EEGs were reviewed in detail with respect to the background activity and the generalized spike-wave (GSW) characteristic.

**Results:** 87 EEGs (56 adolescent-onset IGE, 31 adult-onset IGE) were systematically reviewed. Background was normal in all patients. The morphology, amplitude, duration, frequency, occurrence or activation of GSW pattern did not differ between these two groups.

**Conclusion:** No differences of EEG features were found between the classical adolescent-onset and the adult-onset IGE. This supports the hypothesis that they share common biological determinants and exist along a life-long age spectrum of IGE.

**II D2**  
*Ictal scalp EEG in mesial temporal lobe epilepsy with unitemporal versus bitemporal interictal epileptiform discharges*

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**Purpose:** To assess the lateralizing value of ictal scalp EEG in mesial temporal lobe epilepsy patients with unitemporal (UIED) versus bitemporal independent interictal epileptiform discharges (BIED). Methods: We retrospectively analyzed ictal scalp EEG in 287 seizures of 48 patients who had undergone anterior temporal lobectomy. Patients were classified as UIED (n = 32) and BIED (n = 16) group. Results: There were 201 seizures in 32 UIED patients and 86 seizures in 16 BIED patients. Ictal patterns at seizure onset or later were correctly lateralized significantly more often in UIED patients (93.8%) compared with BIED patients (62.5%). Correct lateralization occurred in 93.5% of seizures in UIED group, whereas in 57.0% of seizures in BIED group. Scalp ictal EEGs, when lateralized at seizure onset or later, were significantly more likely to predict the correct side for surgery in patients with UIED (98.9%) than patients with BIED (71.0%). Switch of lateralization and bilateral independent onset were seen more frequently in BIED group, whereas the maintenance of ictal discharges in unilateral temporal lobe or hemisphere through the whole tracing in UIED group. Conclusion: Our results suggest that interpretation of ictal scalp EEG should be considered more cautiously in BIED group. BIED may be related to bitemporal excitability.