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# Malformations of cortical development and epilepsy in adult patients.

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## Abstract

**OBJECTIVE:**

To describe clinical features of epilepsy secondary to Malformation of Cortical Development (MCD) in a series of adult patients.

**MATERIALS AND METHODS:**

We searched our database for all cases with confirmed epilepsy and MCD and included in the study only those with complete data. Mean age, sex, age at seizure onset (ASO), seizure types, abnormal neurological exam (ANE), mental retardation, family history, gestational or perinatal insults (G-PI), interictal EEG and response to treatment were analyzed. Cases were classified into the 3 main groups (G) according to the Barkovich classification (BC) and then compared: (G1) "malformations due to abnormal cell proliferation", (G2) "malformations due to abnormal migration" and (G3) "malformations due to abnormal cortical organization".

**RESULTS:**

We identified 152 (5.06%) patients with MCD from a total of 3000 with epilepsy. In total, 138 patients with complete medical data were included in this study. The mean age of patients was 36.2 years, 52.2% were female, the mean ASO was 12.3 years, 5.1% of cases had a positive family history and 21% had G-PI. An ANE was observed in 21% and mental retardation in 31.9%. Most of the patients (84.8%) had refractory epilepsy. The distribution of cases according to the BC was: 51.4% in G1, 28.9% in G2 and 19.6% in G3. Comparing the 3 groups, we found that an ANE was statistically more frequent in G3 and was present in 70.4% of cases.

**CONCLUSION:**

Our series of adult patients with epilepsy and MCD suggests that MCD are identified as commonly in a developing country as in previous "first world" series. Neurological deficits were more common in the subgroup of patients with polymicrogyria and schizencephaly (BC Group 3).