Postoperative EEG in Hemimegalencephaly

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Hemimegalencephaly is a congenital malformation characterized by a unilaterally enlarged and anatomically abnormal hemisphere, often associated with seizures. Patients with this syndrome are often responsive to functional hemispherotomy. Figure 1 is from a 3-month-old girl who had been suffering from severe treatment-resistant epilepsy since birth, due to right hemimegalencephaly. After three disconnective neurosurgical procedures, the girl was free of clinical seizures. However, ictal activity over the abnormal hemisphere was still recorded 7 months after the last operation, but disappeared a year later (fig. 2). We conclude that an ipsilateral ictal pattern may be part of the postoperative EEG, without indicating incomplete disconnection.

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Disclosure Statement

The authors report no disclosures.

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Fig. 1. Preoperative MRI (**a**) shows right hemimegalencephaly; ictal EEG (**b**) right, predominantly anterior activity.

Fig. 2. Seven months after the third operation, EEG shows persistent ictal activity confined to the isolated hemisphere (**a**); a year later, only a decreased background activity with intermittent bursts of rapid rhythms was recorded (**b**).