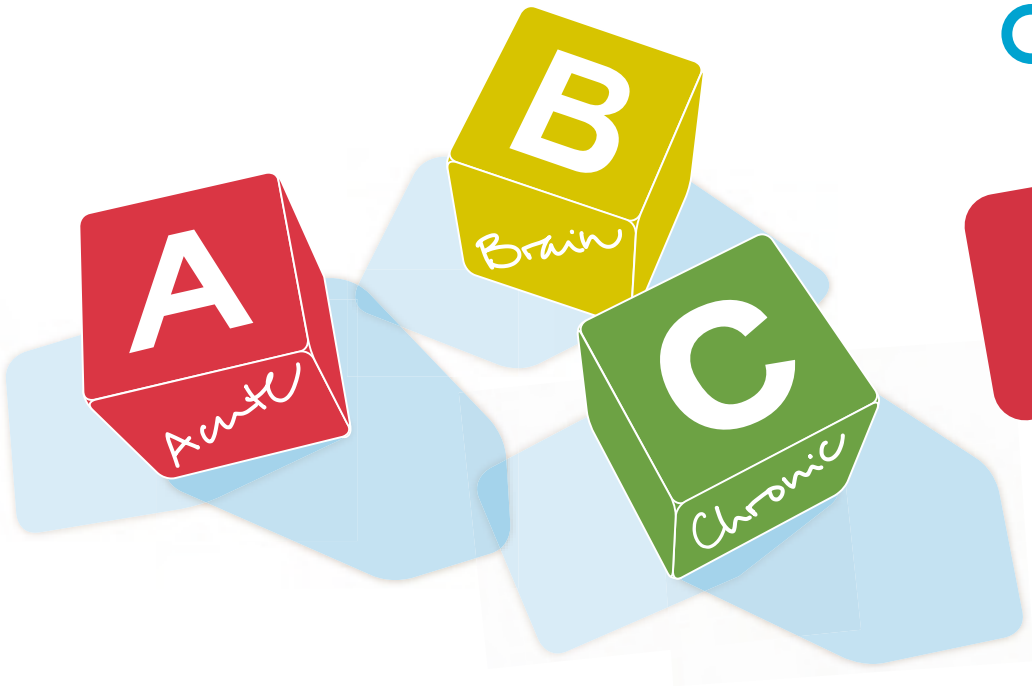
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Abstract Book

A · Acute
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Building our alphabet

ABSTRACTS

Topic: Epilepsy: Medical and Surgical treatment

EPNS25_111 - Indications and outcomes of hemispherotomy: a tertiary pediatric epilepsy center experience

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Objective

Epilepsy is one of the most common neurological diseases. Despite the appropriate use of two antiepileptic drugs, 30-40% of patients continue to experience refractory seizures that impair their quality of life and cognitive functions. This study aimed to evaluate the indications, outcomes, and effectiveness of hemispherotomy in children with drug-resistant epilepsy.

Methods

Twenty-seven children, aged between 9 months and 17 years, who were evaluated at Gazi University Faculty of Medicine Pediatric Neurology-Epilepsy Center and decided to undergo hemispherotomy, were retrospectively analyzed. Detailed histories, Video EEG monitoring results, MRI findings, and postoperative seizure-free statuses were thoroughly reviewed.

Results

Of the 27 patients, 16 (59.25%) were female and 11 (40.75%) were male. Hemispherotomy was performed on 18 (66.6%) of the patients. The etiologies included cortical development malformations in 13 patients (48.1%), encephalitis sequelae in 10 (37%) (of which 7, or 25.9%, were Rasmussen encephalitis), and MCA infarcts in 2 (7.4%).

The epileptogenic zone was unilateral in 19 patients (70.3%) and bilateral with a dominant hemisphere in 8 patients (29.6%). MRI findings revealed pathology in a single hemisphere in 25 patients (92.5%). Among the hemispherotomies performed, 10 (55.5%) were on the left side and 8 (44.4%) on the right. Surgeries involved the nondominant hemisphere in 11 patients (61.1%) and the dominant hemisphere in 2 (11.1%).

Ictal EEG findings were consistent with the pathological hemisphere in 10 patients (55.5%). Preoperative hemiparesis was present in 6 patients (33.3%). Postoperatively, 27.7% of the patients achieved complete seizure freedom.

Conclusions

Hemispherotomy is a highly effective surgical method, particularly in cases of drug-resistant epilepsy originating from a single hemisphere. The timing of epilepsy surgery is crucial for achieving seizure freedom and improving quality of life. Developing well-equipped, multidisciplinary centers for epilepsy surgery is essential in this regard.