Hemispherotomy for Hemimegalencephaly

- Epileptiform discharges in the context of self-limited pediatric focal epilepsy (EDSelFEC) in pediatric hemispherotomy patients: Role of white matter abnormalities
- A case of acute functional hemispherotomy in a young woman with hemimegalencephaly and super-refractory status epilepticus
- Transsylvian transopercular peri-central core hemispherotomy for treating epilepsy: anatomy, surgical technique, and clinical outcome
- Hemispheric surgery in children: perisylvian technique
- Vertical Parasagittal Hemispherotomy
- Interhemispheric Vertical Hemispherotomy: Technique, Outcome, and Pitfalls-A Bicentric Retrospective Case Series of 39 Cases
- Tandem pediatric neurosurgery: treatment of synostosis and intractable epilepsy. Illustrative case
- Predicting seizure outcomes and functional outcomes after hemispherotomy: are we any better?

Hemispherotomy is an effective treatment option for patients with Hemimegalencephaly and drug-resistant epilepsy. Surgical outcome may be variable among different surgical series, and the long-term neuropsychological trajectory has been rarely defined using a standardized neurocognitive test. We report the epileptological and neuropsychological long-term outcomes of four consecutive HME patients, operated on before the age of three years. All patients were seizure-free and drug-free, and the minimum follow-up duration was of five years. Despite the excellent post-surgical seizure outcome, the long-term developmental outcome is quite variable between patients, ranging from mild to severe intellectual disabilities. Patients showed improvement mainly in communication skills, while visuo-perceptive and coordination abilities were more impaired. Epileptological outcome seems to be improved in early treated patients; however, neuropsychological outcome in HME patients may be highly variable despite early surgery [1)].

1)

Pepi C, De Benedictis A, Rossi-Espagnet MC, Cappelletti S, Da Rold M, Falcicchio G, Vigevano F, Marras CE, Specchio N, De Palma L. Hemispherotomy in Infants with Hemimegalencephaly: Long-Term Seizure and Developmental Outcome in Early Treated Patients. Brain Sci. 2022 Dec 30;13(1):73. doi: 10.3390/brainsci13010073. PMID: 36672056; PMCID: PMC9856354.