

Surgical treatment of children with drug-resistant epilepsy involving the Rolandic area

Shuang Wang^{1,2}, Hongwei Zhang^{1,3}, Chang Liu¹, Qingzhu Liu¹, Taoyun Ji^{1,2}, Wen Wang¹, Guojing Yu¹, Lixin Cai¹, Xiaoyan Liu^{1,2}

¹ Pediatric Epilepsy Center, Peking University First Hospital, No. 1 Xi'an Men Street, Xicheng District, Beijing 100034, China

² Department of Pediatrics, Peking University First Hospital, No. 1 Xi'an Men Street, Xicheng District, Beijing 100034, China

³ Department of Neurology, Qilu Children's Hospital of Shandong University, No. 23976 Jingshi Road, Huaiyin District, Jinan ShanDong 250000, China

Surgical treatment of children with drug-resistant epilepsy involving the Rolandic area

- Refractory epilepsy with lesions in the Rolandic area may be cured by epilepsy surgery.
- Malformation of cortical development was the major causative factor in this paediatric cohort.
- Although the anatomical/EEG/clinical relationship may not be very clear in children, especially young children (under 3 years) who have epileptic spasms, interictal epileptiform discharges localized in the Rolandic area is a factor related to good seizure outcome.

- Intraoperative neurophysiological monitoring (IONM) is a very useful and effective method to protect motor function in children, especially in those who are unable to cooperate during presurgical motor evaluation investigation.
- Stimulation intensity of MEP may be higher in young children.
- Stable CMAP during IONM can predict good motor function outcome.