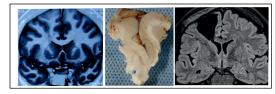


Epilepsy Surgery for Malformations of Cortical Development

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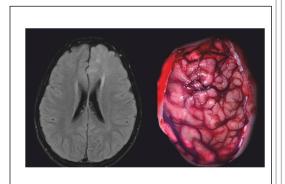
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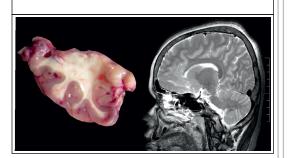


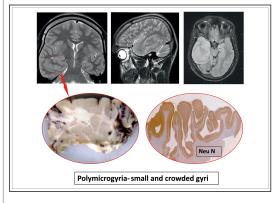


Introduction

Epilepsy surgery for malformations of cortical development (MCD) often requires multiple non-invasive as well as invasive pre-surgical evaluations and innovative surgical strategies. There is limited data regarding surgical management of people with chronic drug resistant epilepsy (DRE) & MCD among the low and middle income countries.

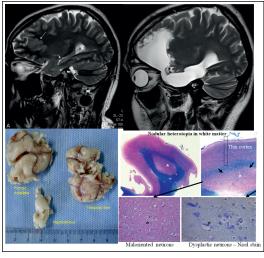






Methods

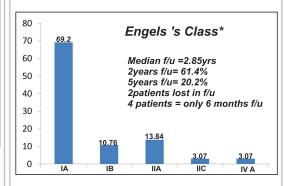
Presurgical evaluation, surgical strategy and outcome of 65 people who underwent resective surgery for DRE with malformations of cortical development between July 2007 and June 2014 were analysed. The surgical outcome was correlated with preoperative clinical, VEEG, MRI, invasive monitoring, surgical findings as well as histopathology and QOLIE-89 scores.



Value
65
3-60(22.15)
60.0% males
3 months to 40 years(9.15 yrs)
1-39 years (11.67)
6 months to 7 years(2.85yrs)
2

Results

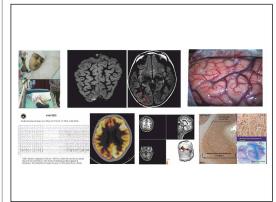
This cohort consists of 24 cases evaluated retrospectively and 39 cases prospectively. Age of onset ranged from 3 months to 40 years (mean 9.15yrs; SD 7.25). Duration of epilepsy ranged from 1-39 years (mean 11.67; SD 8.99). The following regional distribution was found; Temporal-35 (Language-13), Frontal-11 (Motor Cortex-5), Parietal-6 (Sensory Cortex-4), Occipital-3 and multilobar-8. Invasive monitoring was performed for identification of the epileptogenic zone (EZ) as well as eloquent cortex in 7 and intra-operative electrocorticography (ECoG) was used in 32 cases.





Conclusions

Surgical management of people with DRE and MCD is possible in countries with limited resources. Meticulous pre-surgical evaluation to localize epileptogenic zone and complete resection of the focus and lesion can lead to cure or control of epilepsy and improvement in QOL was observed along with seizure-free outcome. The resected tissue can be subjected to proteomic, genomic and metabolomic evaluation through international research collaboration.



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