

OP30

Outcome of temporal lobe resection for pediatric epilepsy: review of 197 casesGreg James¹, Martin Tisdall², Sophia Varadkar², Helen J. Cross², William Harkness²¹ National Hospital for Neurology and Neurosurgery, London, United Kingdom² Great Ormond Street Hospital, London, United Kingdom

Paediatric temporal lobe epilepsy results from a number of pathologies, including hippocampal sclerosis (HS), tumour, cortical dysplasia and vascular malformations. Temporal lobe resection (TLR) is an established surgical technique for TLE. We reviewed all cases of TLR for epilepsy performed in our institution from 1995-2013. 197 consecutive operations performed in 187 children were identified. Records, radiology, pathology and surgical databases were analysed. Median age was 12 years (range 0-20). Left sided surgery predominated (60%). Mean follow-up was 36 months (range 1-144). Histological analysis revealed 83 (42%) had low-grade neoplasms, 62 (31%) hippocampal sclerosis, 14 (7%) cortical dysplasia, and 4 (2 %) cavernomata. 10 (5%) of the cases were revisional resections. Outcome was assessed in the 148 (75%) of cases with sufficient (24 month) follow-up to assess Engel class. Overall, 91 (61%) were Engel I, 13 (9 %) Engel II, 19 (12%) Engel III and 25 (17%) Engel IV. The tumour subgroup had the highest proportion with Engel I (73%). Children with HS achieved 59% Engel I. Subgroup analysis of HS cases revealed that Engel class I outcome was achieved in 75% of those with no extra-hippocampal abnormality on MRI. In HS cases with no "atypical" features on EEG, 77% achieved Engel I. Children with cortical dysplasia or cavernoma had Engel I outcomes of 44% and 33% respectively. 12 children (6%) had surgical complications, 8 of which were wound related (infection, pseudomeningocele or leak). 1 child had brain swelling and required intensive care admission, but made a full recovery. There were no peri-operative deaths. Post-operative neuropsychology reports were available for 57 children. Of these, 46 (80%) had no new deficit following surgery. New deficits were predominantly minor and related to visual/working memory. This is the largest series of paediatric TLR yet reported. These data will improve prognostication and patient counselling.