Hypermotor seizure

Hypermotor seizures (HMSs) consist of complex movements involving proximal segments of the limbs and trunk that appear violent and inappropriate for the situation.

Hypermotor seizures are most often reported from the frontal lobe but may also have temporal, parietal, or insular origin.

Arain et al., noted a higher proportion of patients with temporal lobe epilepsy in our surgical cohort who had hypermotor seizures. They evaluated the anatomic localization and surgical outcome in patient with refractory hypermotor seizures who had epilepsy surgery.

Case series

Arain et al, identified twenty three patients with refractory hypermotor seizures from the epilepsy surgery database. They analyzed demographics, presurgical evaluation including semiology, MRI, PET scan, interictal/ictal scalp video-EEG, intracranial recording, and surgical outcomes. We evaluated preoperative variables as predictors of outcome.

Most patients (65%) had normal brain MRI. Intracranial EEG was required in 20 patients (86.9%). Based on the presurgical evaluation, the resection was anterior temporal in fourteen patients, orbitofrontal in four patients, cingulate in four patients, and temporoparietal in one patient. The median duration of follow-up after surgery was 76.4months. Fourteen patients (60%) had been seizure free at the last follow up while 3 patients had rare disabling seizures.

Hypermotor seizures often originated from the temporal lobe in this series of patients who had epilepsy surgery. This large proportion of temporal lobe epilepsy may be the result of a selection bias, due to easier localization and expected better outcome in temporal lobe epilepsy. With extensive presurgical evaluation, including intracranial EEG when needed, seizure freedom can be expected in the majority of patients [1)].

1)
Arain AM, Azar NJ, Lagrange AH, McLean M, Singh P, Sonmezturk H, Konrad P, Neimat J, Abou-Khalil B. Temporal lobe origin is common in patients who have undergone epilepsy surgery for hypermotor seizures. Epilepsy Behav. 2016 Oct 9;64(Pt A):57-61. doi: 10.1016/j.yebeh.2016.09.019. PubMed PMID: 27732917.