

Introduction

Paediatric Epilepsy Surgery is challenging owing to the type of pathology, poor societal understanding of the disease, unwillingness in endorsement of surgical treatments, their outcomes and last but not the least costs. An invasive pre surgical evaluation is indicated for patients whose epileptogenic zone needs delineation from eloquent cortex and in patients with multiple lesions making it a 2 stage procedure.

We highlight the outcomes and challenges of the team in developing these tailored treatments.

Conclusions

Application of western paradigms of epilepsy surgery is not possible to a large subset of our patients.

This small case series makes us hopeful that we may be able to develop approaches avoiding two-stage (invasive monitoring) procedures in a carefully chosen subset of patients.

It may make paediatric epilepsy surgery more acceptable, affordable and accessible to the masses.

Results

Total number of patients is 12. Male to female ratio 10:2.

1/3 patients had 2 types of seizure

Second type of seizures were dialeptic or focal

On an average the patients were on 3 anti-epileptics with poor seizure control

Surgical substrates were:

Isolated MTS - 2

MTS Plus - 3

FCD - 7

Multilesional perinatal injury - 2

Congenital developmental malformations -3

5 patients had Lesionectomy.

4 patients had Temporal Lobectomy with AH.

2 patients had Extratemporal Lobectomy.

1 patient had TPO Disconnection and Functional Hemispherectomy.

Two patients (<2yrs) developed pseudomeningocele

one patient each developed Lt. hemiparesis and Meningitis.

Three (25%) patients had breakthrough seizures within 6 months of surgery and one patient had epileptic episode after 2 years- from a different lesion.

A patient with Mesial Temporal Sclerosis has Engel Class II and another with Frontal Dysplasia is Engel Class III.

Eight (67%) patients are completely

Methods

Prospective study from 2013 to 2016. 12 patients who had minimum follow-up of 6 months were included

Another subset of 6 patients was identified - needed 2-stage surgery underwent 1-stage epilepsy surgery .

In most patients multimodality pre-surgical evaluation techniques and intra-operative monitoring including awake surgery were used

Clinical characteristics/ Types of surgery/ Engel class outcomes were evaluated

Learning Objectives

Understanding the different types of pediatric epilepsy patients.

Different surgical Substrate.

SEEG can be avoided in some patients.

Single stage surgery is possible in Pediatric epilepsy patients.

