Extensive multilobar cortical dysplasia in infants commonly is first seen with catastrophic epilepsy and poses a therapeutic challenge with respect to control of epilepsy, brain development, and psychosocial outcome. Experience with surgical treatment of these lesions is limited, often not very encouraging, and holds a higher operative risk when compared with that in older children and adults.

Two infants were evaluated for surgical control of catastrophic epilepsy present since birth, along with a significant psychomotor developmental delay. Magnetic resonance imaging showed multilobar cortical dysplasia (temporoparietooccipital) with a good electroclinical correlation. They were treated with a temporal lobectomy and posterior parietooccipital disconnection.

Both infants had excellent postoperative recovery and at follow-up (1.5 and 3.5 years) evaluation had total control of seizures with a definite “catch up” in their development, both motor and cognitive. No long-term complications have been detected to date.

The incorporation of disconnective techniques in the surgery for extensive multilobar cortical dysplasia in infants has made it possible to achieve excellent seizure results by maximizing the extent of surgical treatment to include the entire epileptogenic zone. These techniques decrease perioperative morbidity, and Daniel RT et al. believe would decrease the potential for the development of long-term complications associated with large brain excision [1].

1)
Daniel RT, Meagher-Villemure K, Roulet E, Villemure JG. Surgical treatment of temporoparietooccipital cortical dysplasia in infants: report of two cases. Epilepsia. 2004 Jul;45(7):872-6. PubMed PMID: 15230716.