

Cortical tuber

Cortical **tubers** associated with **tuberous sclerosis** complex (TSC) are potential **epileptic foci** that are often amenable to resective or ablative surgeries, and controlling **seizures** at a younger age may lead to improved functional outcomes. **Magnetic resonance guided laser induced thermal therapy** (MRgLITT) has become a popular minimally invasive alternative to traditional craniotomy. Benefits of MRgLITT include the ability to monitor the ablation in real-time, a smaller incision, shorter hospital stay, reduced blood loss, and reduced postoperative pain. To place the laser probe for LITT, however, **stereotaxy** is required-which classically involves head fixation with cranial pins. This creates a relative minimum age limit of 2 years old because it demands a mature skull and fused **cranial sutures**.

A novel technique is presented for the application of MRgLITT in a 6-month-old infant for the treatment of epilepsy associated with TSC.

To Hooten et al. knowledge this is the youngest patient treated with laser ablation. The authors used a frameless navigation technique with a miniframe tripod system and intraoperative reference points. This technique expands the application of MRgLITT to younger patients, which may lead to safer surgical interventions and improved outcomes for these children ¹⁾.

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Hooten KG, Werner K, Mikati MA, Muh CR. MRI-guided laser interstitial thermal therapy in an infant with tuberous sclerosis: technical case report. J Neurosurg Pediatr. 2018 Sep 28;1-6. doi: 10.3171/2018.6.PEDS1828. [Epub ahead of print] PubMed PMID: 30265228.

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Last update: **2024/06/07 02:51**

