

LASER INTERSTITIAL THERMAL THERAPY (LITT)

LEADING IN **MINIMALLY INVASIVE** ROBOTIC BRAIN SURGERY.

FOR NEARLY A QUARTER OF A CENTURY, MONTERIS HAS LED THE DEVELOPMENT OF LITT AS A NEUROSURGICAL TOOL FOR:

- > BRAIN TUMORS
- > RADIATION NECROSIS
- > DRUG-RESISTANT EPILEPSY

The **minimally invasive** NeuroBlate System is the only **robotically-controlled**, commercially available LITT system specifically designed for use in the brain. Preferred by patients, NeuroBlate stands alone with **peer-reviewed prospective evidence** and **advanced technology** for optimized visualization, control, and safety. All while delivering **economic value** to hospitals.

MONTERIS

NeuroBlate

The NeuroBlate System is the only minimally invasive, robotic, laser thermotherapy tool that uses MR-guidance to surgically ablate primary and metastatic brain tumors, radiation necrosis, and epileptogenic foci. NeuroBlate provides precise and maximal brain lesion ablation without the invasiveness of an open neurosurgical procedure.

Where NeuroBlate is used



Guidelines, Position Statements in Support of LITT

- LITT is supported in the National Comprehensive Cancer Network[®] Guidelines for recurrent glioblastoma, recurrent metastases, and radiation necrosis.¹
- > The major neurosurgical societies, AANS, CNS, and ASSFN, issued evidence-based Position Statements on the use of LITT for newly diagnosed and recurrent primary and metastatic tumors, radiation necrosis, and drug-resistant epilepsy.²⁻³

NEUROBLATE ECONOMIC VALUE + ADVANCING PATIENT OUTCOMES

The NeuroBlate System and LITT procedure are valuable tools in the brain tumor and epilepsy care service lines. Many LITT procedures are incremental as some patients choose minimally invasive LITT as an alternative to open craniotomy.

Only Monteris has generated prospective real-world outcomes evidence for NeuroBlate LITT from our multi-center study, **LAANTERN** (Laser Ablation of Abnormal Neurological Tissue Using Robotic NeuroBlate System; NCT02392078).

NeuroBlate evidence shows:

SHORT HOSPITAL STAY

Less than 34 hours (median)^{4,5}

LITTLE OR NO ICU^{4,7}

LOW RATE OF INFECTIONS

0.2-0.6% reported⁶

LOW COMPLICATIONS + READMISSIONS

1.2-1.4% adverse events reported⁶

1.8% 30-day readmission rate⁴

POSITIVE EFFECTS ON QUALITY OF LIFE + FUNCTIONAL STATUS

74% of epilepsy patients reported improvement in quality of life⁵

For tumor patients, mobility, self-care, and return to normal activities improved post-procedure⁴

PATIENTS PREFER A MINIMALLY INVASIVE APPROACH TO BRAIN SURGERY OVER OPEN RESECTION

84% of epilepsy patients and over 40% of primary and recurrent tumor patients reported preference for minimally invasive LITT^{5,7}

A MINIMALLY INVASIVE APPROACH, **PREFERRED BY PATIENTS**^{5,7,8}

Patients gain the benefits of minimally invasive NeuroBlate without compromising outcomes.

Most NeuroBlate patients experience:

- > A short recovery
- > A single stitch or two and no shaved head
- > A quick return to normal activities
- Safety and efficacy of LITT in drug-resistant epilepsy patients is well-established and comparable to data for open resection."²
- Survival outcomes for LITT are comparable to those published for traditional resection."7

LEADING IN MINIMALLY INVASIVE LASER ABLATION FOR BRAIN TUMORS

Monteris continuously leads with surgeons' preferred visualization platform: NeuroBlate[®] Fusion-S[™] Software



Minimally-invasive access with Mini-Bolt cranial fixation

The NeuroBlate Procedure

- > A small laser probe is inserted into the patient's skull through the Mini-Bolt cranial fixation device.
- The procedure is performed while the patient is in the MRI. The surgeon robotically controls the laser probe and the ablation from the MRI control room.
- > The surgeon visualizes the lesion and the precision ablation using NeuroBlate[®] Fusion-S[™] Software.
- > Typically, patients return home after a short hospital stay with 1-2 stitches.

NeuroBlate Workflow Versatility

- > NeuroBlate can be used with either an intraoperative or diagnostic MRI
 > Patient transfer from OR to MBL is seemless with
 - to MRI is seamless with the AtamA® board

AND DRUG-RESISTANT EPILEPSY







Precise ablation with NeuroBlate laser probes

NeuroBlate'

NeuroBlate consumables used for each case



References

- 1. Central Nervous System Cancers Version 1.2023, 03/24/23 © 2023 National Comprehensive Cancer Network® (NCCN®) All rights reserved. NCCN Guidelines®. BRAIN-B p. 73
- Wu C, Schwalb JM, Rosenow JM, McKhann GM 2nd, Neimat JS; American Society for Stereotactic and Functional Neurosurgeops. The American Society for Stereotactic and Functional Neurosurgery Position Statement on Laser Interstitial Thermal Therapy for the Treatment of Drug-Resistant Epilepsy. Neurosurgery. 2022 Feb 1;90(2):155-160. doi: 10.1227 NEU.000000000001799
- 3. American Association of Neurological Surgeons and Congress of Neurological Surgeons Position Statement on Laser Interstitial Thermal Therapy for the Treatment of Brain Tumors and Radiation Necrosis. AANS-CNS_Position_Statement_Paper_LITT_Tumor-Oncology_090721.ashx
- 4. Kim AH, Tatter S, Rao G, et al. Laser Ablation of Abnormal Neurological Tissue Using Robotic NeuroBlate System (LAANTERN): 12-month outcomes and quality of life after brain tumor ablation. Neurosurgery. 2020 April 21: nyaa071. doi: 10.1093/neuros/nyaa071
- 5. Landazuri P, Shih J, Leuthardt E, et al. A prospective multicenter study of laser ablation for drug resistant epilepsy One year outcomes. Epilepsy Res. 2020 Nov; 167:106473. doi.org/10.1016/j.eplepsyres.2020.106473
- 6. Monteris Data on File. Clinical Literature Search 2020-2022.
- 7. de Groot J, Kim A, Prabhu S, et. al. Efficacy of Laser Interstitial Thermal Therapy (LITT) for Newly Diagnosed and Recurrent *IDH* Wild-type Glioblastoma, Neuro-Oncology Advances, 2022, vdac040, doi: 10.1093/noajnl/vdac040
- 8. Sinha S, Yang JC, Wallace M, et al. Patient preferences pertaining to treatment options for drug-resistant focal epilepsy. Epilepsy & Behavior, 2022. doi.org/10.1016/j. yebeh.2021.108529

Disclosures

Monteris provides technology for neurosurgeons, which allows them to ablate (destroy with heat), brain structures such as brain tumors, radiation necrosis, and epileptic foci. Monteris technology includes the NeuroBlate System, AtamA, and MiniBolt devices, which may be used together to apply the focused laser energy with little or no effect on surrounding healthy tissue. The NeuroBlate System provides clinicians a tool that offers near real-time control and MRI visualization of the therapy during laser ablation treatment.

All brain surgeries carry risk. Possible adverse events include, but are not limited to, hematoma, embolic events, edema, bleeding, cerebral spinal fluid (CSF) leakage, infection, unintended major tissue damage and permanent neurological deficits. Prior to using these devices, please review the Instructions for Use for a complete listing of indications, contraindications, warnings, precautions and potential adverse events. For full prescribing information, please visit **monteris.com**

Rx Only



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