Letter: Laser Interstitial Thermal Therapy for First-Line Treatment of Surgically Accessible Recurrent Glioblastoma: Outcomes Compared With a Surgical Cohort

To the Editor:

We read with admiration the manuscript "Laser Interstitial Thermal Therapy for First-Line Treatment of Surgically Accessible Recurrent Glioblastoma: Outcomes Compared With a Surgical Cohort" by Fadel et al.¹ This study's objective—to compare outcomes between laser interstitial thermal therapy (LITT) and surgical resection—is impactful because it influences surgical decisionmaking and patient prognosis. Further exploring the applicability of LITT to treat unifocal, lobar, first-time recurrent glioblastoma (rGBM) begins the conversation regarding not restricting LITT to poor surgical candidates and reducing the risk of surgical complications. The authors demonstrated similar survival outcomes between LITT and craniotomy groups, with significantly shorter length of hospital stay for patients treated with LITT.

We agree with and recognize the value of the authors' initiative to investigate the applicability of LITT as a first-line treatment for rGBM, though we believe further investigation into the baseline characteristics of patient's satisfying the inclusion criteria would enable a more holistic understanding of the impact of LITT on outcomes. Although the authors did compare baseline differences between the cohorts, we would have appreciated more details regarding the initial management of patients before intervention because this may affect the effectiveness of thermal therapy and shed light on possible indications or contraindications for using LITT to manage rGBM. Considerations include whether patients were initially treated with radiosurgery, surgical resection, targeted therapies, or immunotherapy. This may be helpful to explore, for example, to better understand if there is any increased efficacy for LITT in patients who have received prior radiotherapy or immunotherapy. Such considerations warrant further investigation considering the findings by Hong et al on the comparison between craniotomy and LITT for recurrence in patients with brain metastases previously treated with stereotactic radiosurgery.² The authors found no difference between the 2 treatment groups for survival metrics, as well as postoperative neurological outcomes and steroid dependence.

We also believe that it would be helpful to know how many patients required adjuvant chemotherapy or salvage radiotherapy because this can affect decision-making for both patients and surgeons given the patient age and clinical status. In addition, although preoperative Karnofsky Performance Scale was evidenced to be statistically insignificant between both cohorts in this study, future studies can further explore preoperative symptomatology including neurological deficits and postoperative symptom relief. Multiple studies have demonstrated significantly improved symptom relief after craniotomy, and this is another factor associated with quality of life that can affect the surgical approach.^{2,3}

Despite methodological limitations and a lack of robust data comparing LITT with resection for both surgically accessible and inoperable GBM, this study provides an avenue for future research exploring a broadened approach to the use of LITT. LITT as a primary treatment is valuable in conserving hospital resources without compromising patient outcomes and in providing patients with a minimally invasive and more cost-effective option than surgical resection for rGBM.⁴

Funding

This study did not receive any funding or financial support.

Disclosures

The authors have no personal, financial, or institutional interest in any of the drugs, materials, or devices described in this article. Brandon Lucke-Wold received a grant from NIH.

Yusuf Mehkri, BS Ramy Sharaf, MMCi* Akshay Reddy, BS* Brandon Lucke-Wold, MD, PhD* *University of Florida College of Medicine, Gainesville, Florida, USA

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10.1227/neu.000000000002721

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