Laser interstitial thermal therapy for posterior fossa lesions: An initial experience.

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Disclosures

- Dr. Gene Barnett and Dr. Alireza Mohammadi are Monteris consultants
Background

- Hypothesis and objective: Investigate tumor control over 6 months following LITT treatment for patients with a variety of posterior fossa tumors (PFTs)
- Rationale/Justification for study:
  - PFTs are challenging therapeutic targets
  - Mainstay surgical approaches associated with appreciable morbidity
- Available literature content on LITT
  - Good control of supratentorial tumors
  - Good control of posterior fossa ganglioglioma
  - Good control of posterior fossa radiation necrosis
Methods

- Retrospective single-institution study of PFT patients treated with LITT
- Patient and treatment characteristics obtained from EMR
- Pre-op and post-op serial MRI reviewed.
- Tumor volumes trended for the duration of treatment
- Morbidity and mortality followed
Results

- Good 6-month tumor control seen for a variety of PFT sizes and pathologies
Results cont’d

- Only 2/8 tumors showed disease progression.

Lesion volume trended over the course of LITT treatment. (* Lesions that increased in volume of the course of treatment).
Results cont’d

- Unremarkable morbidity reported
  - Transient post-op FND comparable with literature.
  - Obstructive hydrocephalus
  - Wound infection
- No mortality associated with the procedure
Conclusions

- Good tumor control seen with LITT for a variety of PFT pathology
- LITT can be safely applied with minimal morbidity