Brain metastases recurrence treatment

Management of brain metastases after radiosurgery failure depends on patient treatment history but often radiation options have been exhausted early. Traditional craniotomy remains an option for single lesion failures if the lesion is surgically accessible, surgery can be performed with minimal morbidity, and the patient remains with good functional status. For patients who have a single surgically difficult to access lesion or who have one of many lesions that may be symptomatic enough to prevent ongoing systemic cancer treatment, few options exist. Use of chemotherapy for tumor regrowth has limited success and use of immunotherapy for tumor regrowth is often complicated by the need for steroid management of symptoms. Bevacizumab and surgical resection have been shown to be effective in the treatment of radiation necrosis lesions but practically bevacizumab is often difficult to obtain due to restrictions related to FDA approval and insurance reimbursement and often lesions are deep and surgically less accessible [1) 2) 3)].

see Magnetic resonance guided laser induced thermal therapy for brain metastases recurrence.

1)
Tye K, Engelhard HH, Slavin KV, Nicholas MK, Chmura SJ, Kwok Y, Ho DS, Weichselbaum RR, Koshy M. An analysis of radiation necrosis of the central nervous system treated with bevacizumab. J Neurooncol. 2014 Apr;117(2):321-7. doi: 10.1007/s11060-014-1391-8. Epub 2014 Feb 7. PubMed PMID: 24504500.
2)
Lubelski D, Abdullah KG, Weil RJ, Marko NF. Bevacizumab for radiation necrosis following treatment of high grade glioma: a systematic review of the literature. J Neurooncol. 2013 Dec;115(3):317-22. doi: 10.1007/s11060-013-1233-0. Epub 2013 Sep 5. Review. PubMed PMID: 24005770.
3)
Foroughi M, Kemeny AA, Lehecka M, Wons J, Kajdi L, Hatfield R, Marks S. Operative intervention for delayed symptomatic radionecrotic masses developing following stereotactic radiosurgery for cerebral arteriovenous malformations–case analysis and literature review. Acta Neurochir (Wien). 2010 May;152(5):803-15. doi: 10.1007/s00701-009-0581-1. Epub 2010 Jan 8. Review. PubMed PMID: 20054699.