Skull base metastases

Skull base metastases (SBMs) are rare lesions in close proximity to critical neural and vasculature structures. This rarity and complexity have led many to only offer nonsurgical therapies. The surgical outcomes for patients with SBM therefore remain unknown.

Design Retrospective, comparison analyses. Setting Johns Hopkins Hospital. Participants All patients who underwent intracranial metastatic tumor surgery. Main Outcome Measure Survival and recurrence. Results Of the 708 patients who underwent intracranial metastatic tumor surgery, 29 (4%) had SBM: 3 (10%) involved the anterior skull base, 7 (24%) the sella, 6 (21%) the orbit, 2 (7%) the sphenoid wing, 3 (10%) the clivus, 4 (14%) the petrous bone, and 4 (14%) the paranasal sinuses. Following surgery, 6 (50%) had improvements in vision and 14 (88%) had improvement and/or maintenance of their cranial nerve symptoms. Three (10%), 0(0%), and 1(3%) developed a new motor, language, and vision deficit, respectively. There were no differences in median survival (10.0 versus 9.2 months, p = 0.48) and local progression-free survival (PFS) (p = 0.52), but there was improved distal PFS (p = 0.04) between patients with and without SBM.

These patients can tolerate surgery with minimal morbidity and mortality, and they have similar prognoses to patients without SBM [1)].

1)
Chaichana KL, Flores M, Acharya S, Sampognaro P, Bettegowda C, Rigamonti D, Weingart JD, Olivi A, Gallia GL, Brem H, Lim M, Quinones-Hinojosa A. Survival and recurrence for patients undergoing surgery of skull base intracranial metastases. J Neurol Surg B Skull Base. 2013 Aug;74(4):228-35. doi: 10.1055/s-0033-1342925. Epub 2013 Apr 3. PubMed PMID: 24436917.