

screening identified relevant studies. Data extraction included study type, population, SRS details, and outcomes. Variables recorded were histopathology, resection degree, number of metastases, SRS platform, dose parameters, cavity volume, margin, time to SRS, local control at 12/24 months, overall, and progression-free survival. Significant predictors were noted. Results: From 10,633 articles, 22 studies with 1,749 cavities. Local control at 12 months was 50–100% (median 82%, IQR 73–84.4%). Distant progression at 12 months was 36–64% (median 45.5%, IQR 38–51%) and at 24 months 39–76% (median 53%, IQR 46–55%). Histology, radiation dose, tumor size, extent of resection, treatment timing, tumor depth, and dural/pial attachment impacted local control, whereas primary disease status, surgical corridor coverage, and tumor location did not. Conclusions: Modifiable SRS treatment and patient selection factors need further investigation. This review emphasizes the necessity for consensus and guides future trials and guidelines to enhance metastatic brain disease management outcomes.

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Endoscopic transorbital approach to the skull base: a single centre 8 year experience

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Background: Minimally invasive endoscopic techniques via the transorbital approach (ETOA) is emerging as an alternative approach for addressing skull base tumours. This study aims to showcase our institution's 8 year experience in using ETOA, detailing the surgical technique employed and presenting comprehensive patient outcomes. Methods: A retrospective analysis was conducted on data from 32 patients who underwent ETOA within the past eight years. Demographic data was obtained as well as information on surgical approaches, intra-operative findings, recurrence and complications. Results: 33 ETOA procedures were performed on 29 patients, with an average age of 45, 14 of whom were women. The superior orbital corridor was utilized in 100% of cases, and in 79.17%, ETOA was complemented by a transnasal approach. Spheno-orbital meningioma accounted for the most common surgical indication (36.36%, n=12, followed by lateral frontal sinus mucocoele (18.75%, n=6). The median length of stay was one day. Transient V1 numbness was the primary complication (33%, n=8), and 18.75% (n=6) necessitated another surgery. Notably, no mortality was associated with this procedure. Conclusions: Our institution's experience underscores the notable safety and effectiveness of ETOA, The main complications being transient V1 numbness, proptosis, transient diplopia. Revision surgery was only required in 6 out of 33 cases.

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Two cases of vestibular nerve hybrid nerve sheath tumours and literature review

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Background: Hybrid Nerve Sheath Tumours (HNST) were introduced in the WHO Blue Book in the 2016 edition. Since that time, extracranial HNST are commonly identified but intracranial lesions are rare. Methods: A systematic review of the literature was completed. Additionally, chart reviews were completed on two cases of HNST identified at our academic center. Results: 3 reports of intracranial HNST located on a cranial nerve have been published to date. 2 cases of cranial nerve associated HNST have been identified at our academic centre. Conclusions: HNSTs may be underreported in the cranial region.

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Spontaneous regression of vestibular schwannoma: a clinical and radiographic characterization

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Background: Vestibular schwannoma (VS) are the most common tumour of the CPA with an annual incidence of 17.4/1 million. They typically demonstrate slow growth over time and as such, observation is a reasonable approach to management. A portion of these tumour remain static and approximately 5-10% of these tumours will demonstrate spontaneous regression while under observation, including those associated with neurofibromatosis type-2.

Previous case series (N= 13-14) have attempted to identify predictive factors for tumour growth and regression, but few have reached significance or demonstrated reproducible findings. Methods: Using a clinical database of VS treated by one team at our institution, we identified 40 patients who have demonstrated significant spontaneous regression or complete resolution of their VS. All patients received a survey by mail and telephone. Results: Radiographic descriptions were collected on 40 patients. Surveys were completed by 18 participants and an additional 18 control patients who demonstrated growth and underwent surgical resection. Conclusions: This is the largest case series we know of to date describing radiographic and clinical presentations of patients shrinking vestibular schwannoma. It is also the only study known to date to consider patient factors by survey in an attempt to identify protective factors.