Sphenoidectomy

Twenty-two consecutive patients (mean age: 45 yr, range: 16-76) who underwent transzygomatic, extended middle fossa approaches for tumors involving MC and CS. INTERVENTIONS: Surgical access to MC and CS was achieved via extended middle fossa, trans-clinoid approach. Lateral sphenoidectomy was defined as drill-out of the greater sphenoid wing lateral to foramen rotundum and ovale, decompression of superior orbital fissure, and removal of anterior clinoid process. Reconstruction was achieved using combination of autologous and synthetic materials. Eleven patients (50%) received adjuvant radiation. MAIN OUTCOME MEASURES AND RESULTS: Tumor pathologies included meningioma (16 patients), epidermoid cyst (2), trigeminal schwannoma (2), invasive pituitary neuroendocrine tumor (1), and chondrosarcoma (1). Mean (range) preoperative tumor size was 4.0 cm (1.3-9). Mean (range) length of follow-up was 4 years (range 0.1-10). Overall tumor control and gross total resection were achieved in 95 and 23% of patients, respectively. Lateral sphenoidectomy was performed in 16 patients (73%) for enhanced surgical access and/or tumor extension to the infratemporal fossa (6 patients). Postoperatively, cranial nerve deficits occurred in 12 (55%) patients (V-9 patients; III, IV, or VI-4; VII-2; VIII-2). Cerebrospinal fluid leak and hydrocephalus occurred in two and four patients, respectively. CONCLUSION: In combination with middle fossa-based approaches to tumors involving MC and CS, lateral sphenoidectomy may play a viable role in tumor access and control [1].

1)
Sun DQ, Menezes AH, Howard MA 3rd, Gantz BJ, Hasan DM, Hansen MR. Surgical Management of Tumors Involving Meckel's Cave and Cavernous Sinus: Role of an Extended Middle Fossa and Lateral Sphenoidectomy Approach. Otol Neurotol. 2017 Nov 13. doi: 10.1097/MAO.0000000000001602. [Epub ahead of print] PubMed PMID: 29135804.