

CRANIO-ORBITAL PRETEMPORAL SKULL BASE APPROACH TO SELLAR/JUXTASELLAR LESIONS

Kenan Arnautovic, MD, PhD, FAANS, FACS

Professor of Neurosurgery

Semmes-Murphey Clinic and Department of Neurosurgery

University of Tennessee

Memphis, TN, USA

Cranio-orbital zygomatic approach has become increasingly popular approach in the past 2.5 decades enabling us to resect complex lesions in the area of sella turcica, supra-, retro- and juxtaseellar areas including the cavernous sinus compartment. Radical tumor resection has been increasingly achieved while preserving and improving neurological function. Further development of pre-temporal transcavernous skull base approach enhanced multidirectional access to these complex skull base areas. To achieve proficiency in these approaches prolonged training in skull base laboratories is necessary.

The main points of this approaches include removing the roof and the lateral wall of the orbit, opening of the superior orbital fissure and the lateral wall of the cavernous sinus, extradural resection of the anterior clinoid, opening/incision of the tentorium, opening of the falciform ligament over the optic nerve and microsurgical resection of the appropriate lesion.

We will be presenting our experiences utilizing this approach over the past 14 years for a 91 lesions including sellar (12), clinoidal/medial sphenoid (16) and cavernous sinus (10) meningiomas, craniopharyngiomas (10), Rathke Cleft cysts (4), arachnoid cysts (6), trigeminal Schwannomas (4), gliomas (8), aneurysms (12), chordomas (3) and orbital tumors (6). The age range of patients was 17-87 years, with a mean of 54. There were 52 women and 39 men. Follow-up ranged from 2 months to 14 years. Detailed demographic, neurologic, radiologic and operative treatment details and outcomes will be provided. In addition, operative pitfalls and traps as well as complication will be discussed.