Cranio-Orbital Pretemporal Approach With Extradural Anterior Clinoidectomy and Optic Nerve Release for Microsurgical Resection of Large Tuberculum Sellae Meningioma—Reversal of Preoperative Bilateral Blindness: 2-Dimensional Operative Video

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Tuberculum sellae meningiomas represent 3% to 10% of all intracranial meningiomas and present with progressive visual deterioration secondary to optic apparatus compression.[1] Treatment options include open microsurgical or endoscopic endonasal approaches, with the size of the tumor, optic canal invasion, and the relationship to the surrounding neurovascular structures dictating the preferred approach.[2-10] Transcranial fronto-temporal skull base approaches offer excellent optic apparatus decompression, particularly when combined with anterior clinoidectomy and early sectioning of the falciform ligaments and release of the optic nerves.[2-4,11-14] We describe the case of a 57-year-old woman who presented to the senior author (KIA) with a large tuberculum sellae meningioma and significant optic apparatus compression causing a 2-month long worsening of vision that progressed to bilateral legal blindness for 2 weeks. The patient underwent a cranio-orbital pretemporal approach,[15] extradural anterior clinoidectomy, opening of falciform ligaments, release of optic nerve, and microsurgical resection of the tumor. To the best of our knowledge, this is the first video case reporting on the reversal of bilateral preoperative blindness lasting 2 weeks preoperatively. The case presentation, surgical anatomy, operative nuances, and postoperative course with imaging are reviewed. The patient provided written informed consent for the publication of her image and PHI.

KEY WORDS: Clinoidectomy, Meningioma, Microsurgery, Optic nerve, Tuberculum sellae

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