

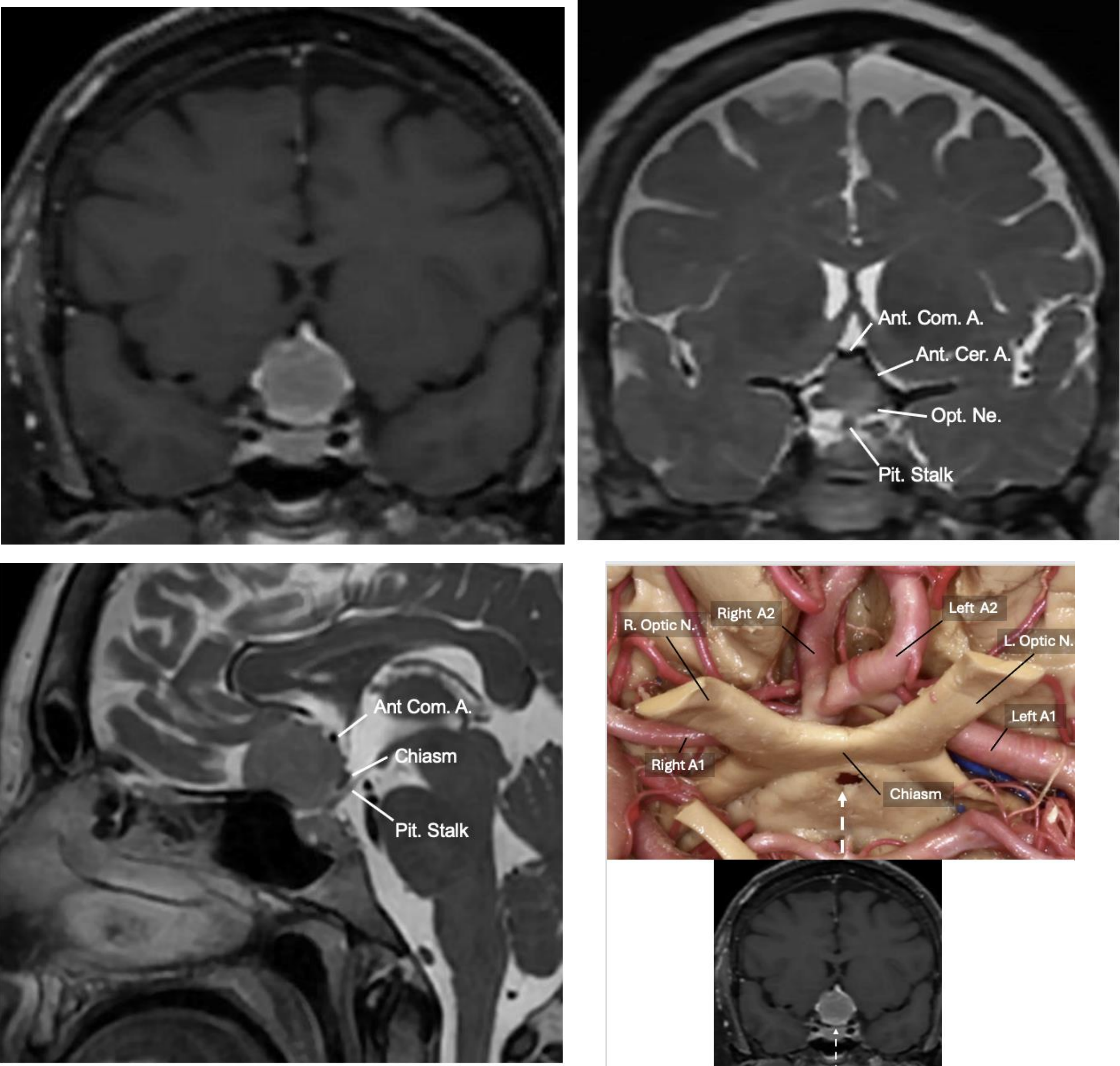
Endoscopic Endonasal Versus Transcranial Resection of Tuberculum Sella Meningiomas: An Approach Comparison In Two Selected Patients

Wesley Shoap, MD¹, Maximiliano Nuñez, MD², Ivan El-Sayed MD³, Jose Gurrola MD³, Ezequiel Goldschmidt MD, PhD⁴

Endoscopic Endonasal Approach

Hx: 51 year-old patient presenting with retroorbital headaches, no abnormal physical exam findings. The mass demonstrated growth on serial imaging.

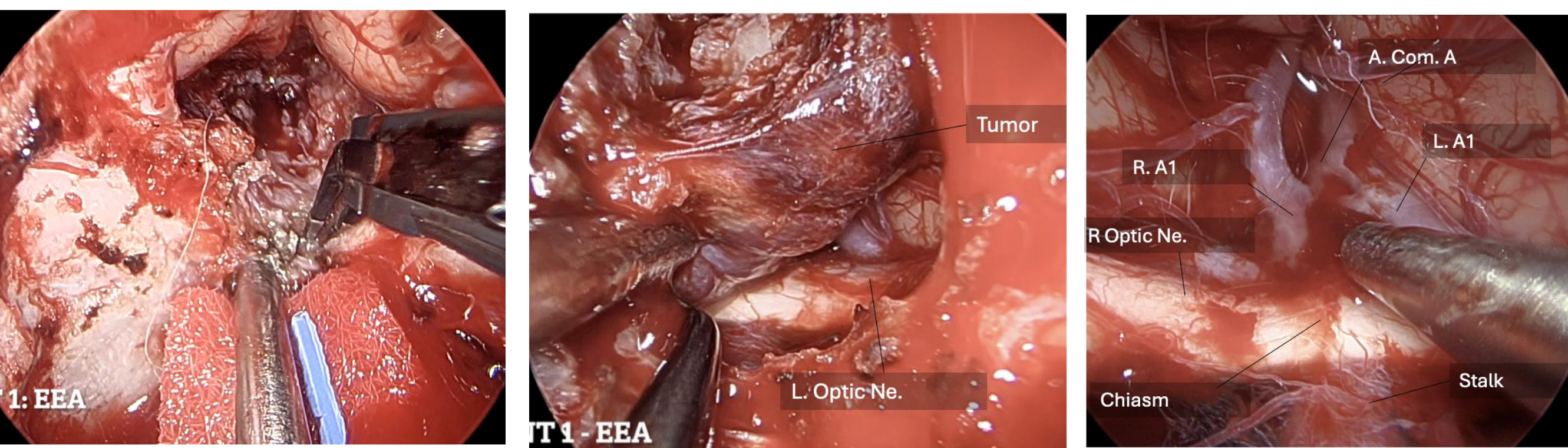
Imaging:



Rationale: Symptomatic patient, tumor medial to optic nerves and ICA bifurcation, long axis best accessed through midline

Risks: Endocrine dysfunction, anosmia, chiasm ischemia, stroke CN deficit, CSF leak, meningitis, hemorrhage, death.

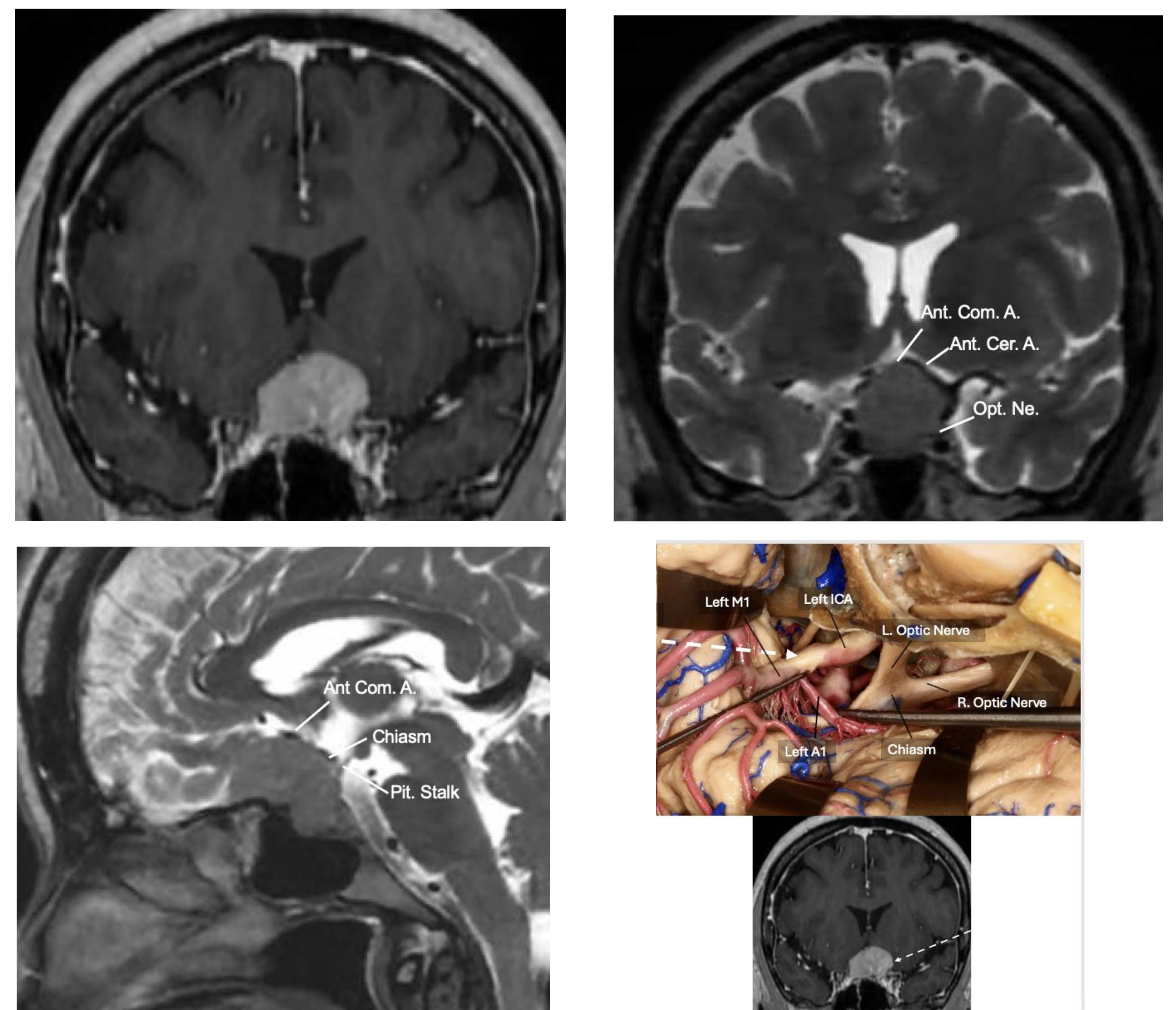
Benefits: Immediate tumor devascularization, visual outcomes



Craniotomy

Hx: 42 year-old patient presenting with progressive visual loss. Ophthalmologic exam demonstrated mild bilateral visual field loss and diminished acuity (L>R).

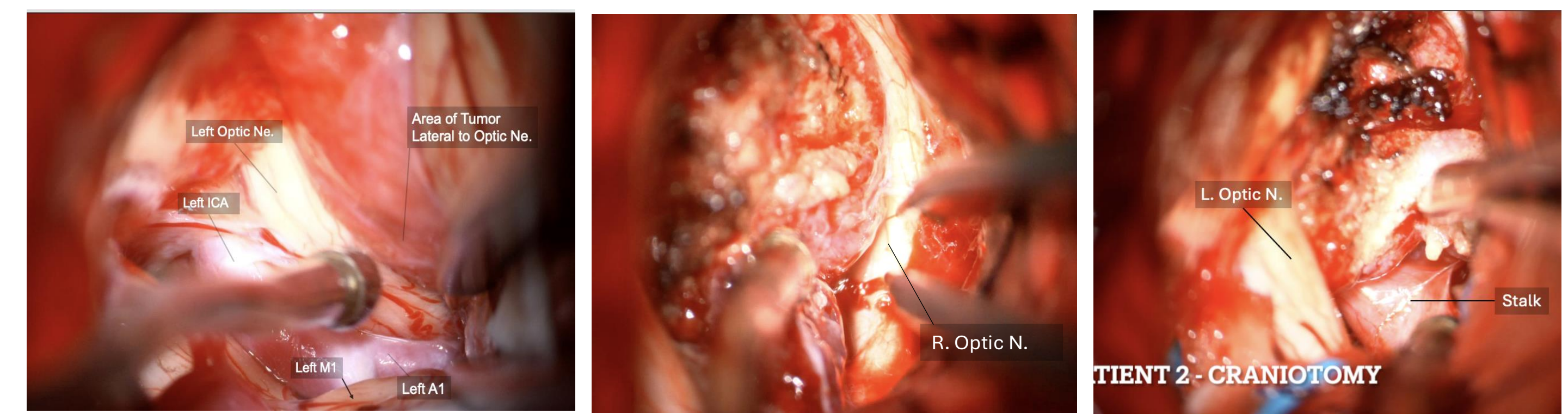
Imaging:



Rationale: Symptomatic patient, tumor extends lateral to left optic nerve, long axis best accessed with anterolateral approach.

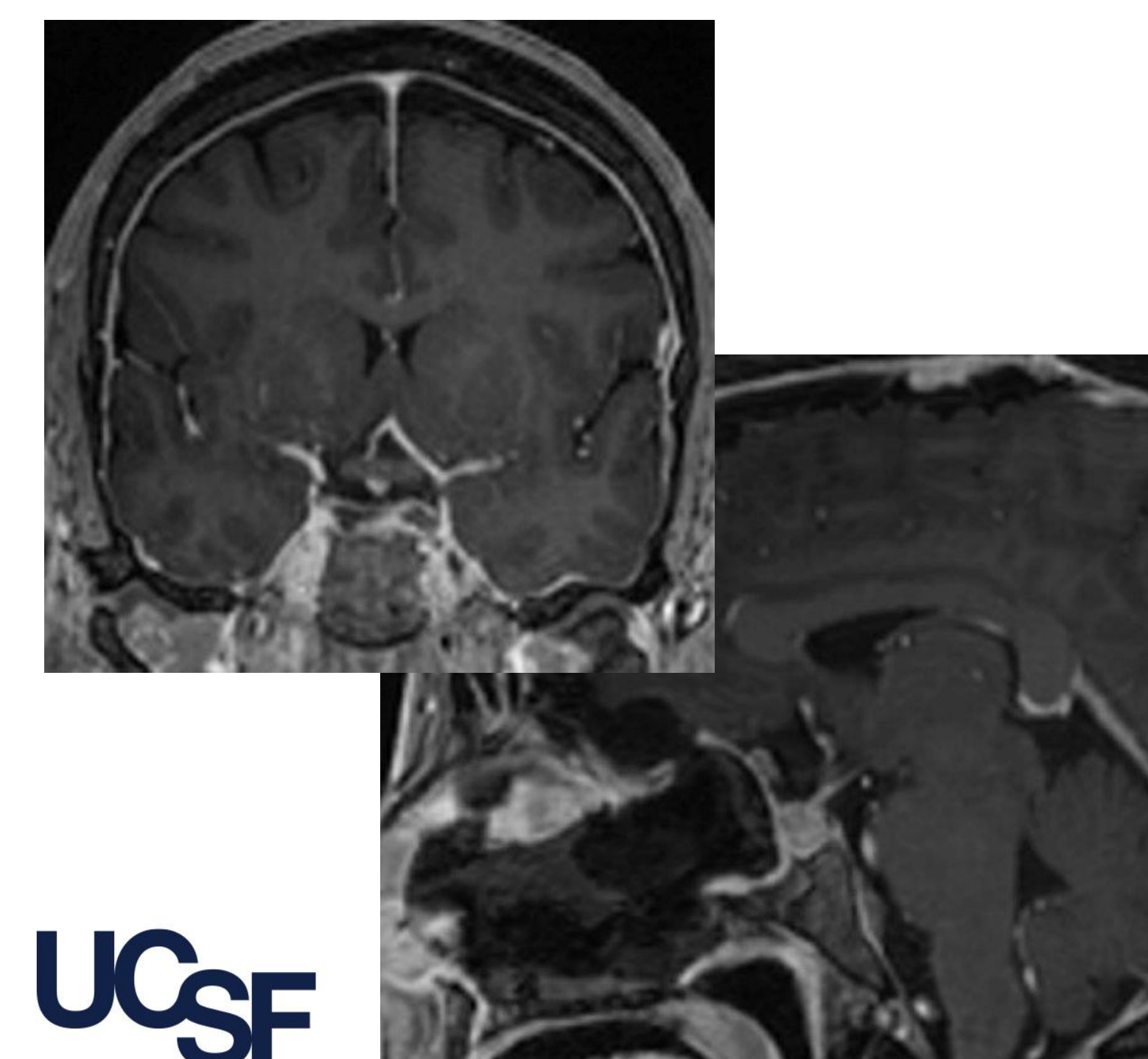
Risks: SSI, seizures, stroke, CN deficit, CSF leak, meningitis, hemorrhage.

Benefits: Immediate identification of important neuro-vasculature

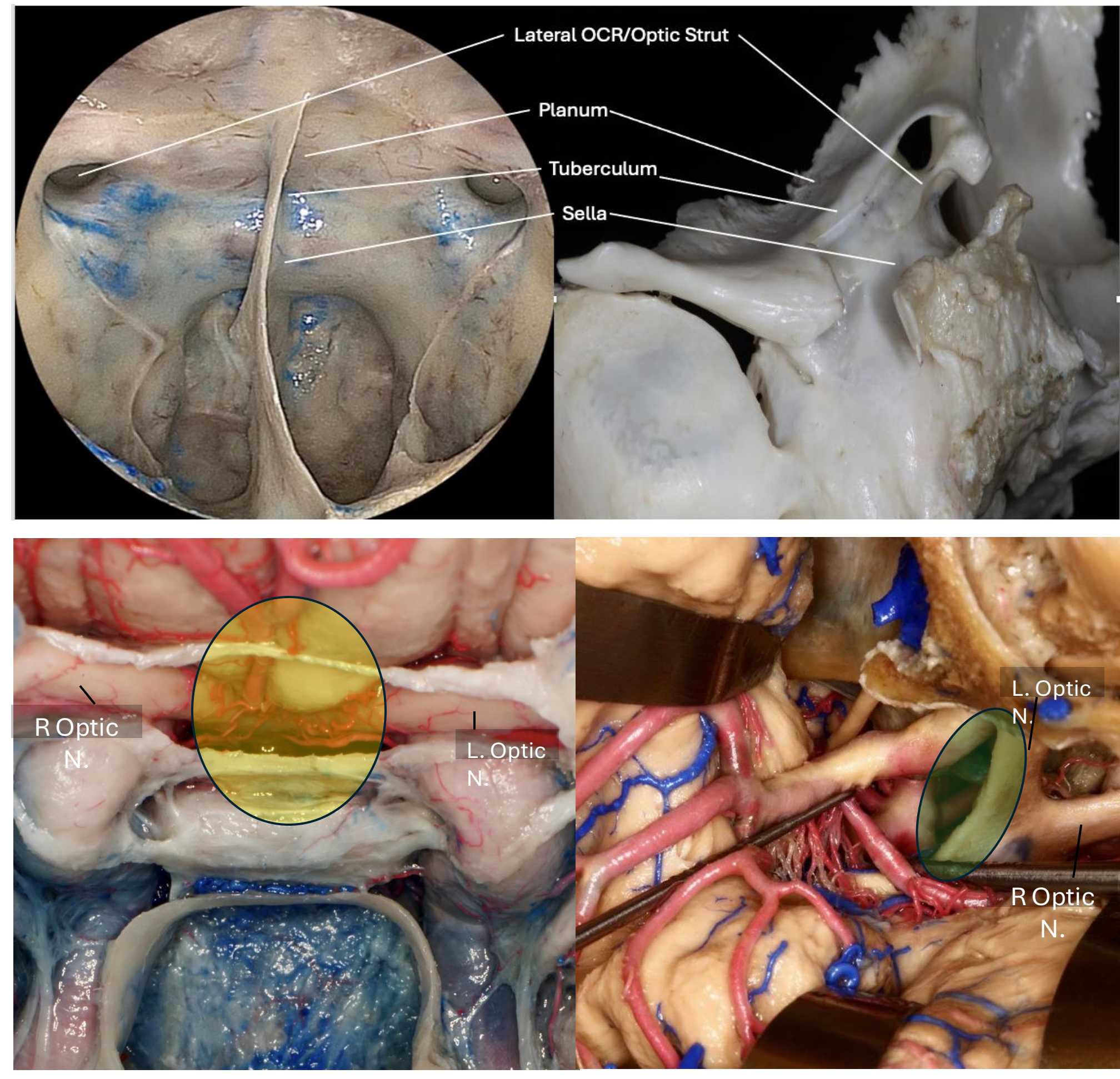


Surgical Steps: Wide sphenoidotomy, removal of sella turcica, removal of tuberculum, tumor excision, multilayered repair

Clinical Outcome: Neurologic exam unchanged, no visual deterioration, headaches Improved, no hormonal supplementation required, GTR achieved



Pre-op Evaluation	EEA	Craniotomy
Olfaction Absent?	✓	+/-
Tumor Medial to Optic Nerves and ICA Bifurcations?	✓	✗
Significant T2 Parenchymal Signal On MRI?	✗	✓
Significant Vascular Encasement?	✗	✓



Surgical Steps: Elevate scalp flap, harvest periosteal graft, craniotomy, microdissection, tumor excision

Clinical Outcome: Neurologic exam unchanged, visual symptoms stable, no hormonal supplementation required, GTR achieved

