

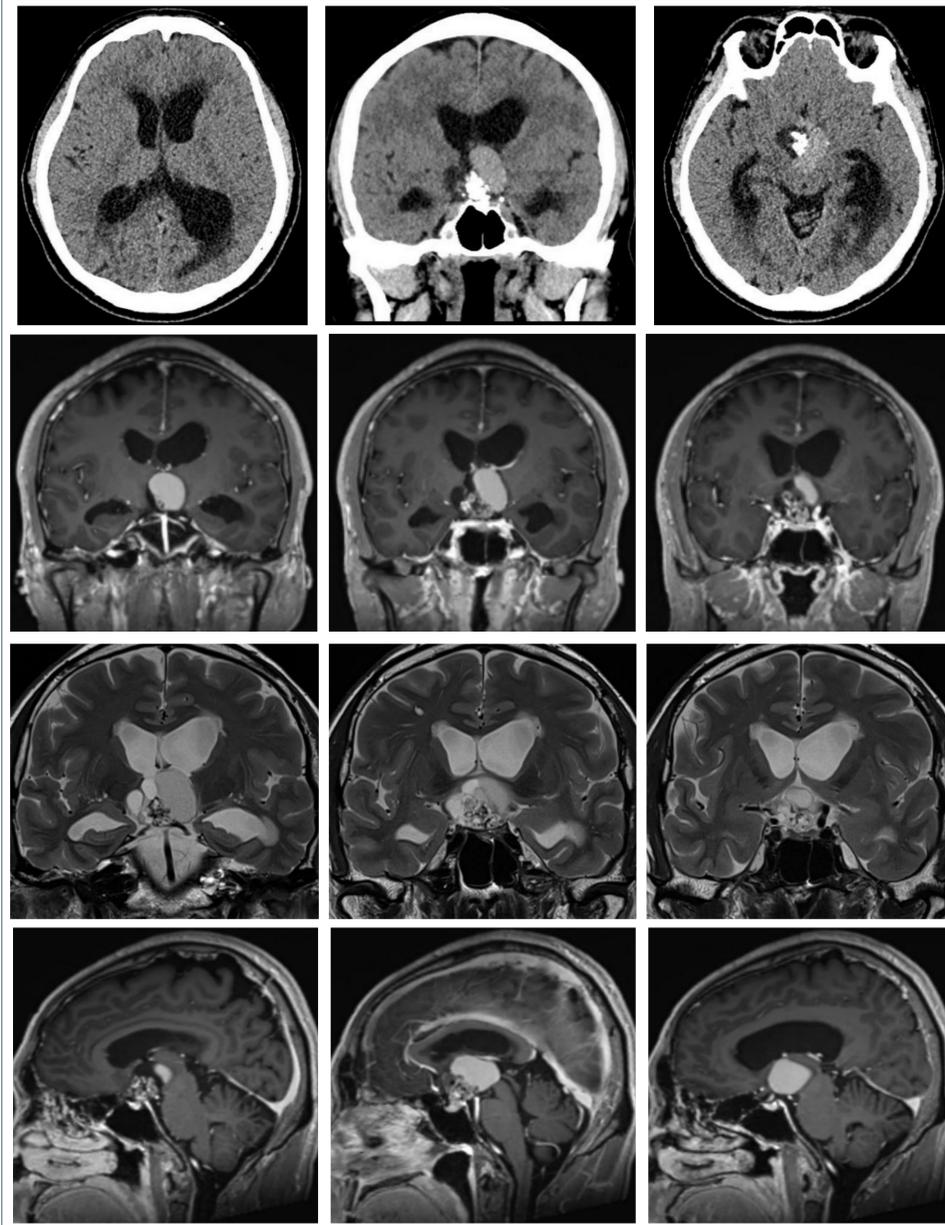
## Abstract

A 60-year-old man presented with obstructive hydrocephalus, bitemporal hemianopsia, and panhypopituitarism and was found to have a large suprasellar mixed cystic and calcified lesion, likely a craniopharyngioma. He was taken to the operating room for an expanded endoscopic endonasal transsphenoidal resection of his tumour with complete macroscopic removal without any complications. He was discharged home after confirmation of no cerebrospinal fluid leak and no post-operative diabetes insipidus.

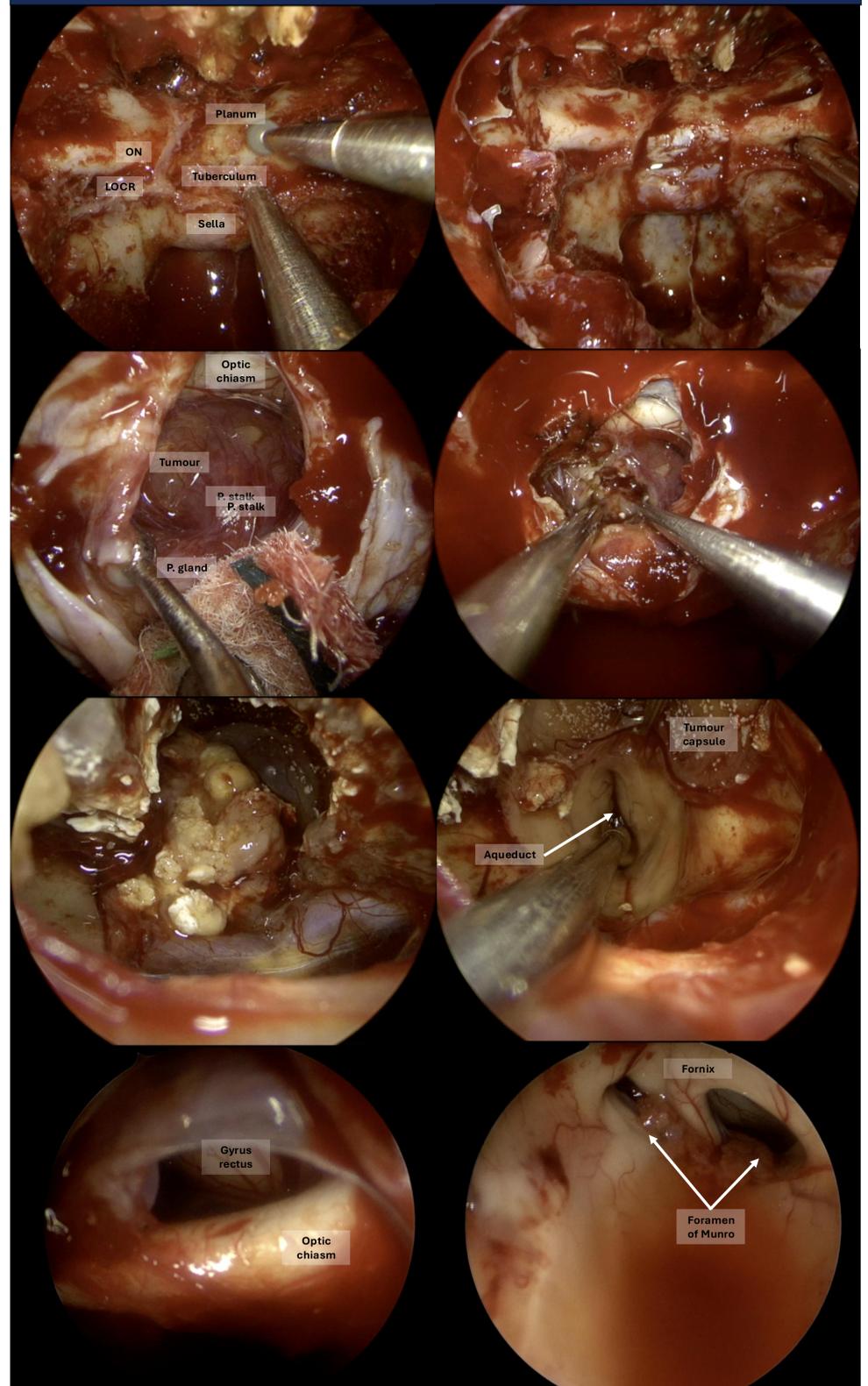
## Presentation

Presented with a 1-month history of progressive headaches, blurred vision and diplopia associated with generalized weakness and fatigue, gait instability, and confusion. On exam, had 20/30 vision bilaterally but had a bitemporal hemianopsia and papilledema, likely from his obstructive hydrocephalus. Biochemistry showed hypopituitarism pre-operatively and the patient was stress-dosed with hydrocortisone on call to the OR. Consented for expanded endoscopic endonasal transsphenoidal resection of his craniopharyngioma.

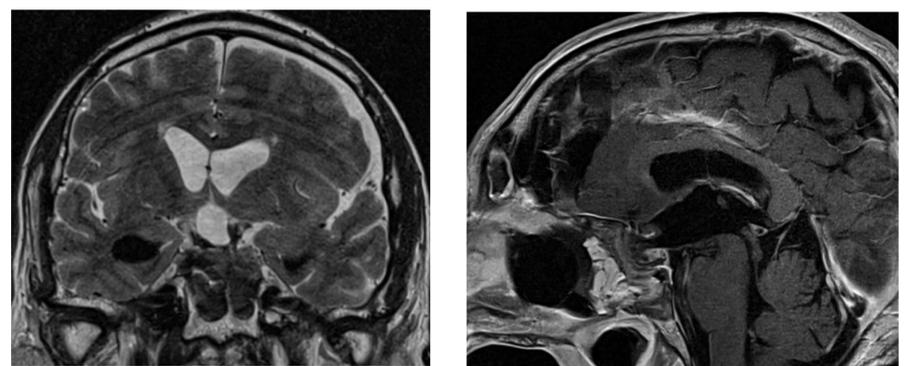
## Preoperative Imaging



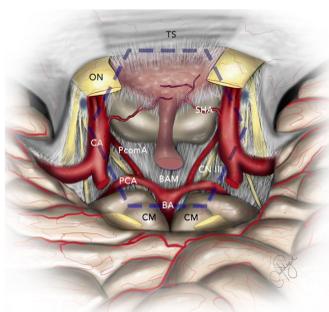
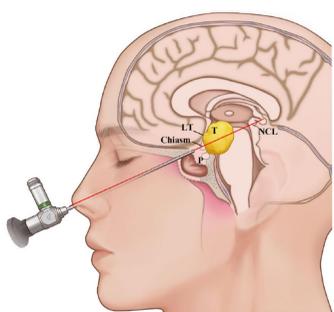
## Operative Approach



## Postoperative Imaging



## Operative Approach



- **LT**- lamina terminalis
- **T**- tumour
- **P**- pituitary gland
- **NCL**- nasal-chiasmatic line
- **ON**- optic nerve
- **CA**- carotid artery
- **SHA**- superior hypophyseal artery
- **TS**- tuberculum sellae
- **BAM**- basilar arachnoid membrane
- **CM**- mammillary bodies
- **PComA**- posterior communicating artery

## Conclusion

- The expanded endonasal transsphenoidal approach utilizing the infrachiasmatic corridor can be effectively utilized for retrochiasmatic craniopharyngiomas that extend to the third ventricle
- Craniopharyngiomas that extend into the anterior fossa above the chiasm or have significant lateral extension to the middle fossa are beyond the boundaries of this approach and may be best served through transcranial corridors

## References:

1. Cao, L., Wu, W., Kang, J., Qiao, H., Yang, X., Bai, J., Zhu, H., Zhang, Y., & Gui, S. (2021). Expanded Transsphenoidal Trans-Lamina Terminalis Approach to Tumors Extending Into the Third Ventricle: Technique Notes and a Single Institute Experience. *Frontiers in oncology*, 11, 761281. <https://doi-org.myaccess.library.utoronto.ca/10.3389/fonc.2021.761281>
2. Ceylan, S., Caklili, M., Emengen, A., Yilmaz, E., Anik, Y., Selek, A., Cizmecioglu, F., Cabuk, B., & Anik, I. (2021). An endoscopic endonasal approach to craniopharyngioma via the infrachiasmatic corridor: a single center experience of 84 patients. *Acta neurochirurgica*, 163(8), 2253–2268. <https://doi-org.myaccess.library.utoronto.ca/10.1007/s00701-021-04832-0>