

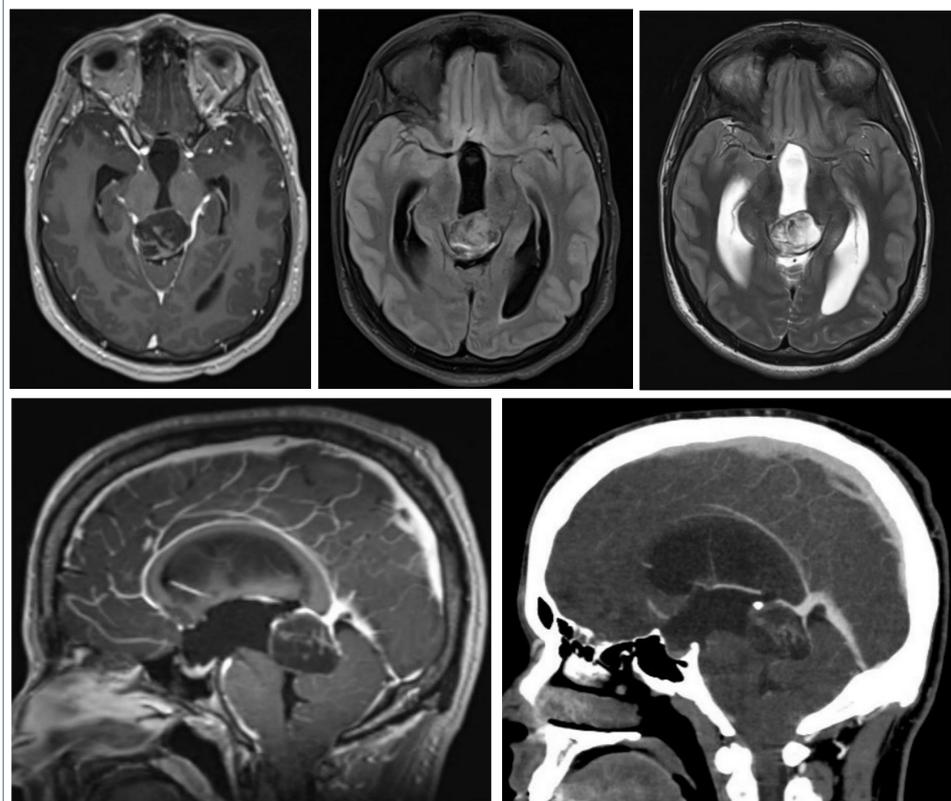
## Abstract

A 22-year-old presented with a large pineal region tumour. He presented to a peripheral hospital with obstructive hydrocephalus and an endoscopic third ventriculostomy was performed with a concomitant biopsy that was non-diagnostic. We took the patient to the operating room for definitive resection of this tumour through an occipital transtentorial approach. Intraoperatively, there were clearly two different morphologies to the tumour, which suggested a mixed cell type tumour. The final pathology was a mature teratoma.

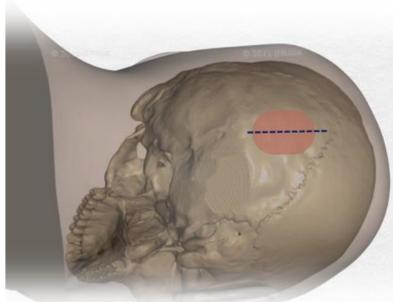
## Presentation

Initial presentation with symptomatic obstructive hydrocephalus at a peripheral hospital where an ETV was done without complications. However, he later presented with progressive headaches, upward gaze palsy, and gait instability despite a patent ETV on interval MRI. Neurologic exam showed findings of Parinaud's syndrome and papilledema. Given his symptomatic presentation, large tumour causing mass effect, and lack of a tissue diagnosis, we offered surgical resection of this lesion.

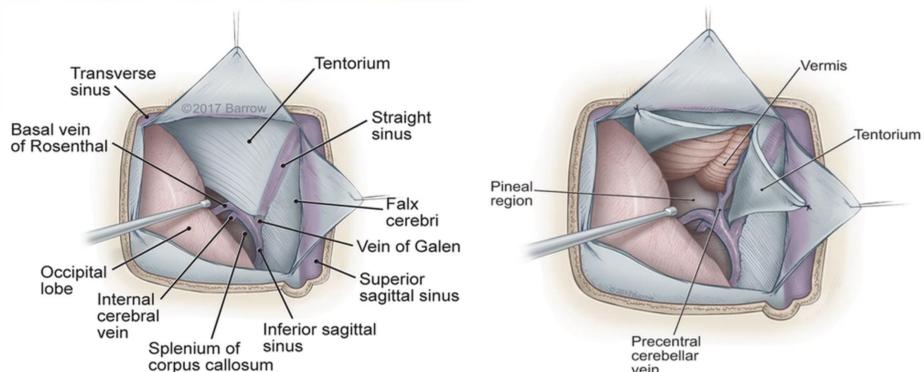
## Preoperative Imaging



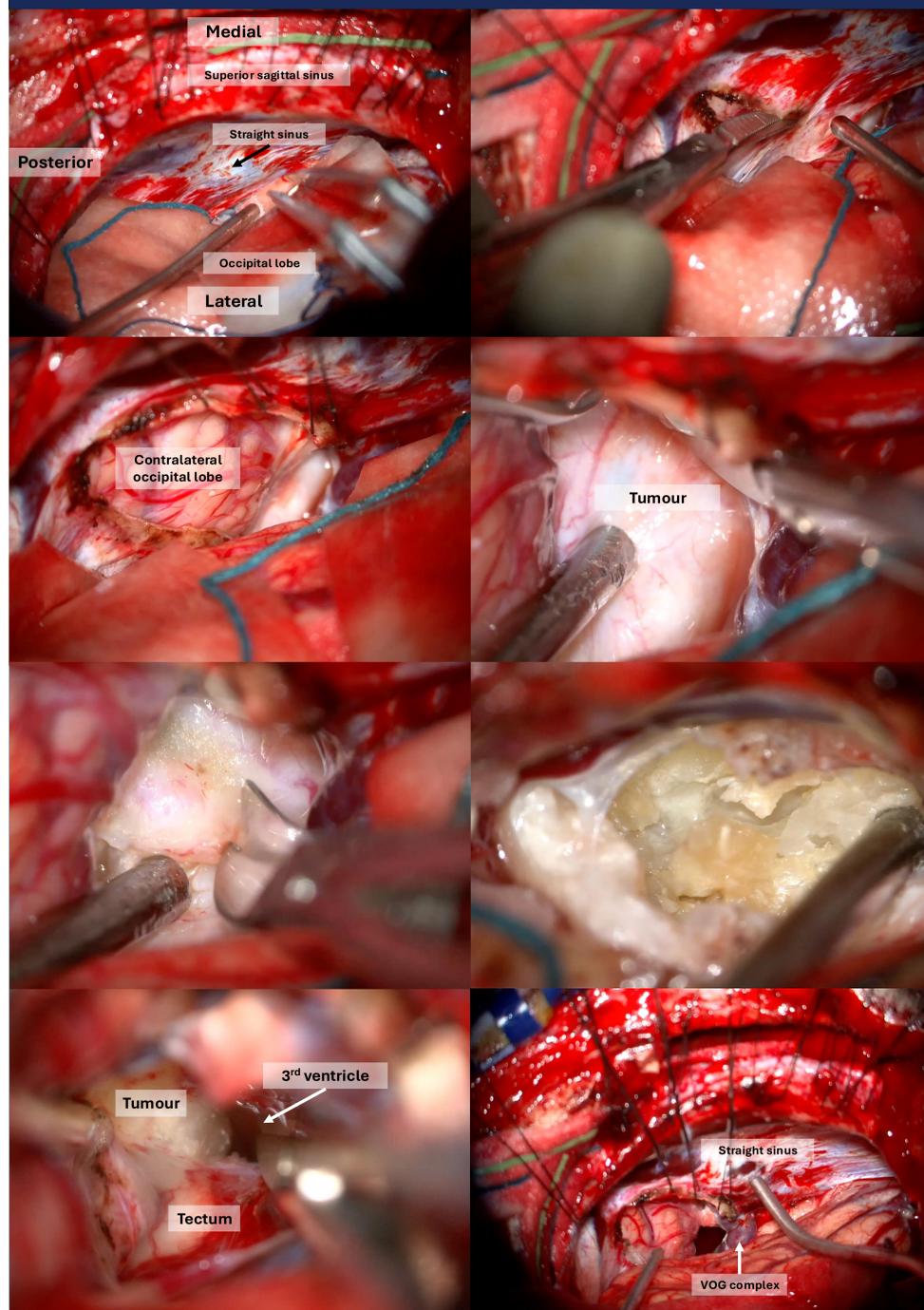
## Operative Approach



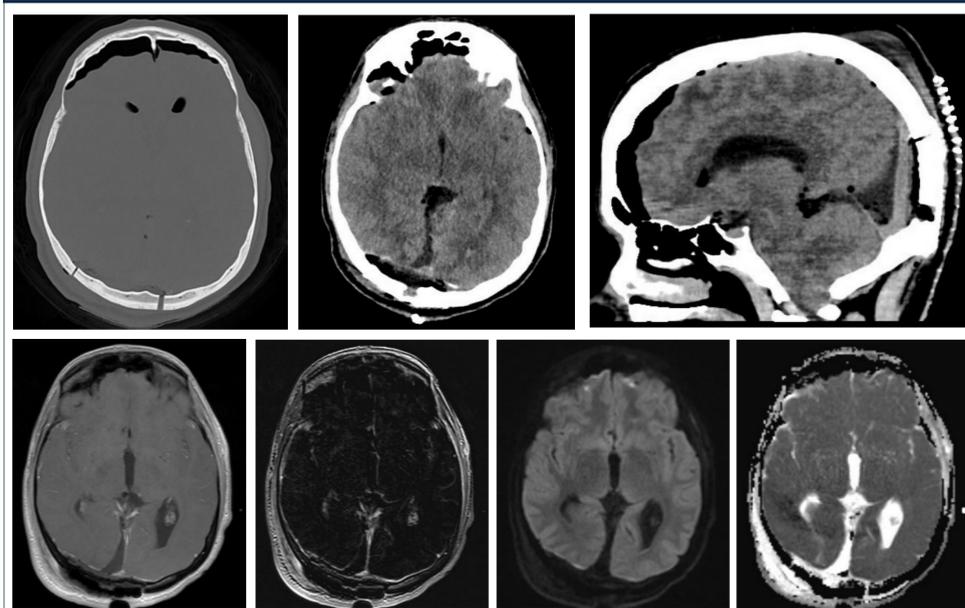
- Lateral position- right side down
- Paramedian craniotomy- occipital transtentorial approach
- Surgical adjuncts: neuro-navigation, neuromonitoring with SSEPs + MEPs, doppler
- Intraoperative EVD insertion for brain relaxation



## Intraoperative Approach



## Postoperative Imaging



## Conclusion

- Final pathology: primary intracranial mature teratoma
- The occipital transtentorial approach provides overall excellent bilateral, panoramic exposure of the midline pineal region with expanded, wide working angles compared to other approaches
- CSF diversion intraoperatively with an EVD decreases brain retraction
- Visual field deficits from occipital lobe retraction usually recovers in clinical follow-up

## References:

1. Congress of Neurological Surgeons- Occipital transtentorial approach for falcine and pineal region meningiomas; Barrow Neurological Institute- #271: Torcular Craniotomy and Occipital-Transtentorial Approach for Resection of a Low Quadrigeminal Midbrain Cavernous Malformation