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KARNATAKA RADIOLOGY EDUCATION PROGRAM

## **CASE PRESENTATION**

**CASE OF OPTIC PATHWAY GLIOMA**

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# POSSIBLE DIFFERENTIAL DIAGNOSIS



## NEUROSARCOIDOSIS

- Pachymeningeal and leptomeningeal involvement.
- Pituitary gland involvement
- Parenchymal involvement (representing extension of leptomeningeal disease via perivascular spaces)
- Longitudinally extensive transverse myelitis

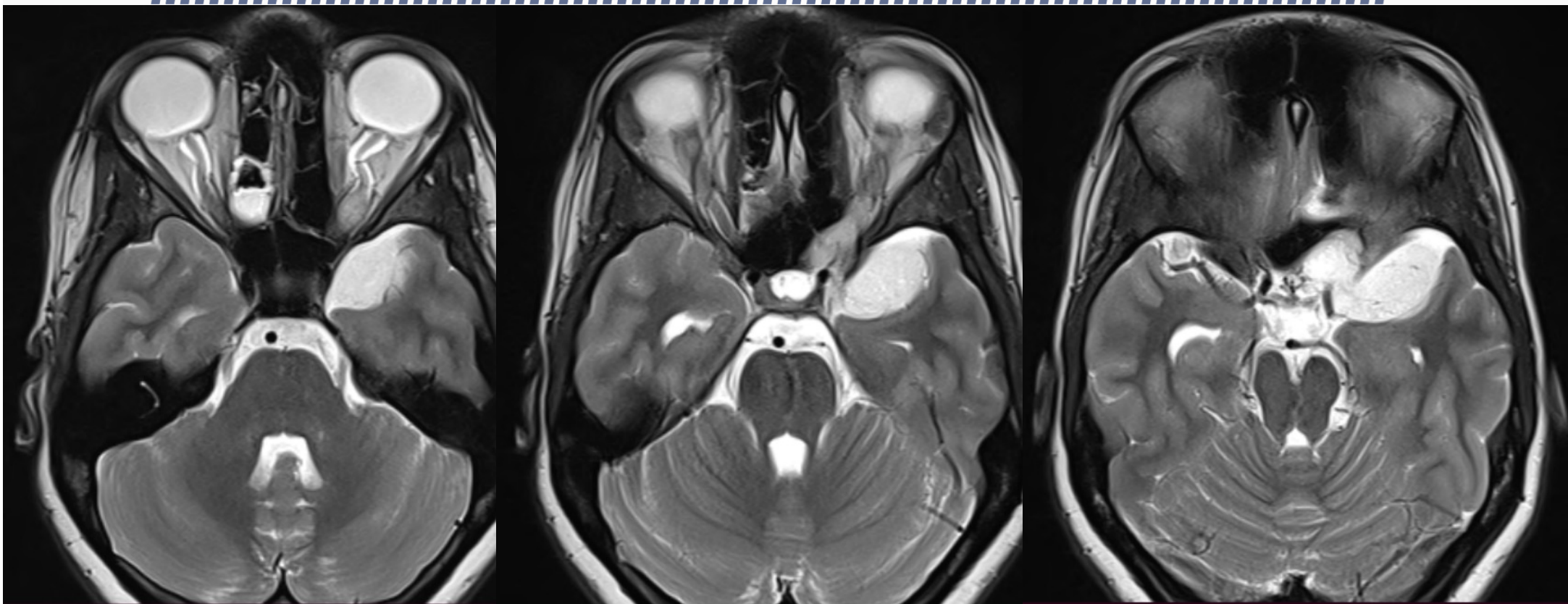
## CNS TUBERCULOSIS

- Multiple ring enhancing lesions
- Leptomeningeal involvement.
- Pachymeningitis: rare yet possible.
- Pituitary tuberculosis is rare although possible.
- Longitudinally extensive tuberculous transverse myelitis is rare however has been reported.



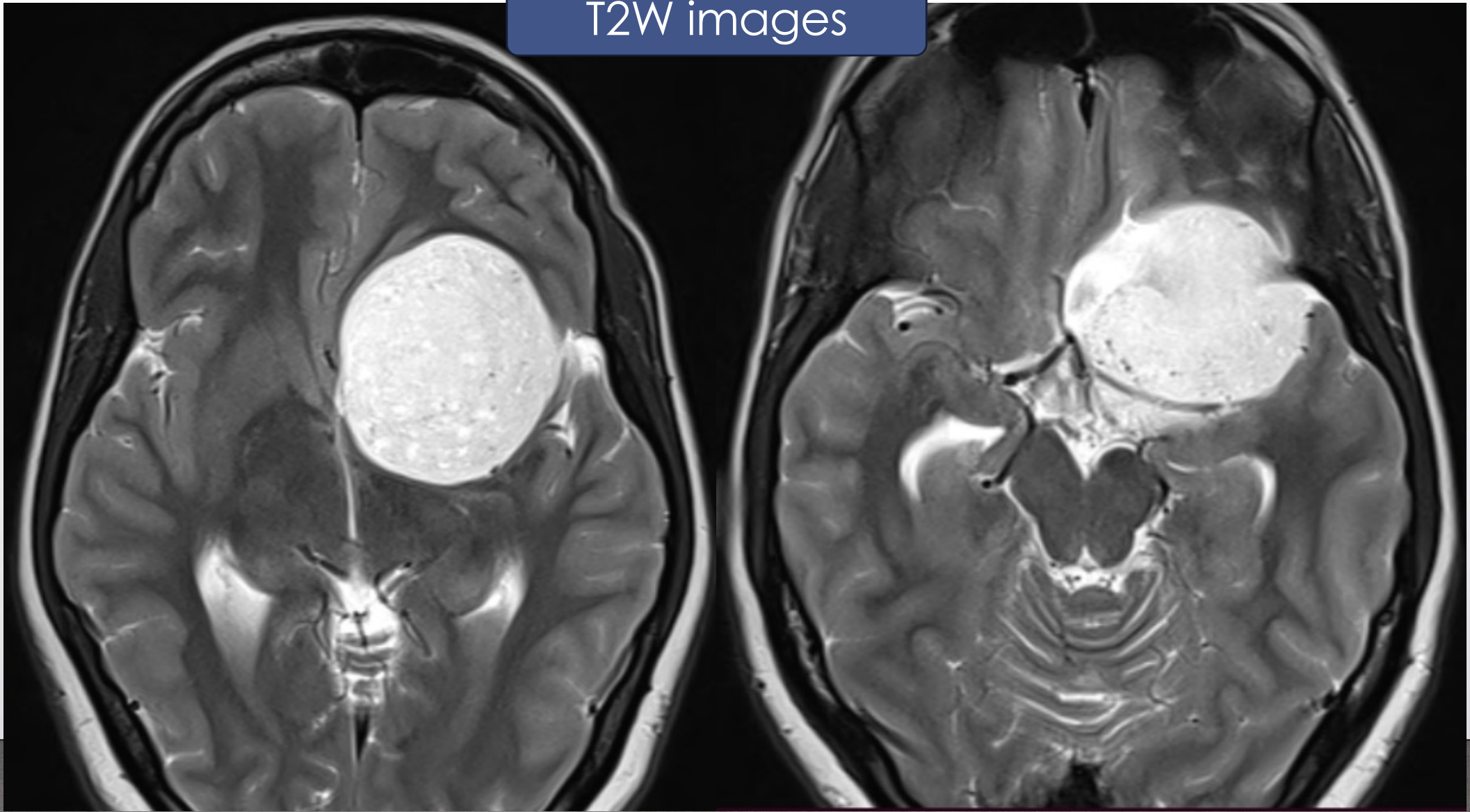
- 17 year old female presented with complaints of diffuse headache associated with reduced vision in the left eye since the past 30 days. Her symptoms were insidious in onset and progressive in nature.
- Her complaints further progressed to complete loss of vision on the left side.
- Rest of the history, examination and clinical markers were unremarkable.
- MRI Brain plain & contrast was advised to rule out any intracranial SOL.

## T2W images

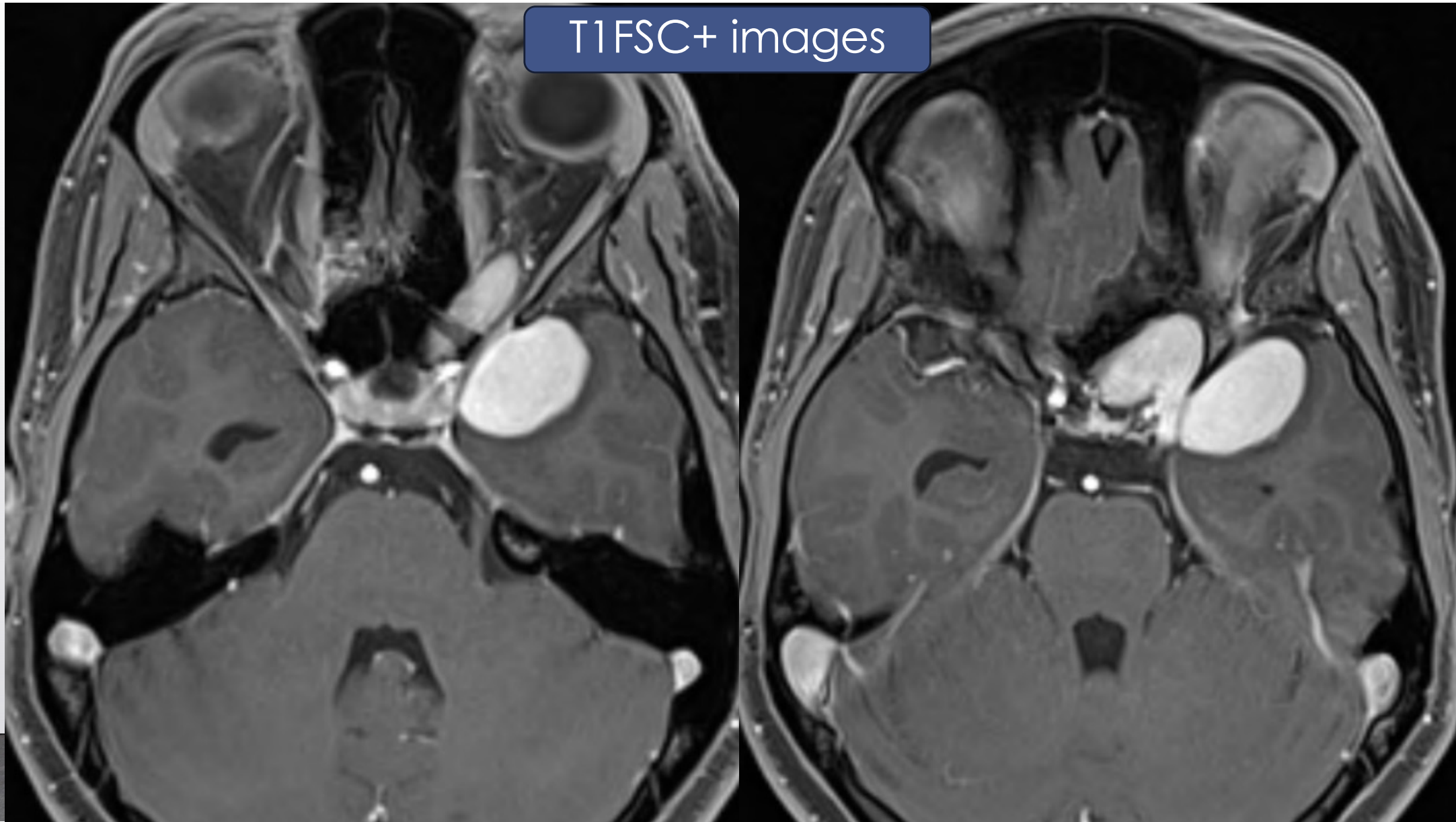




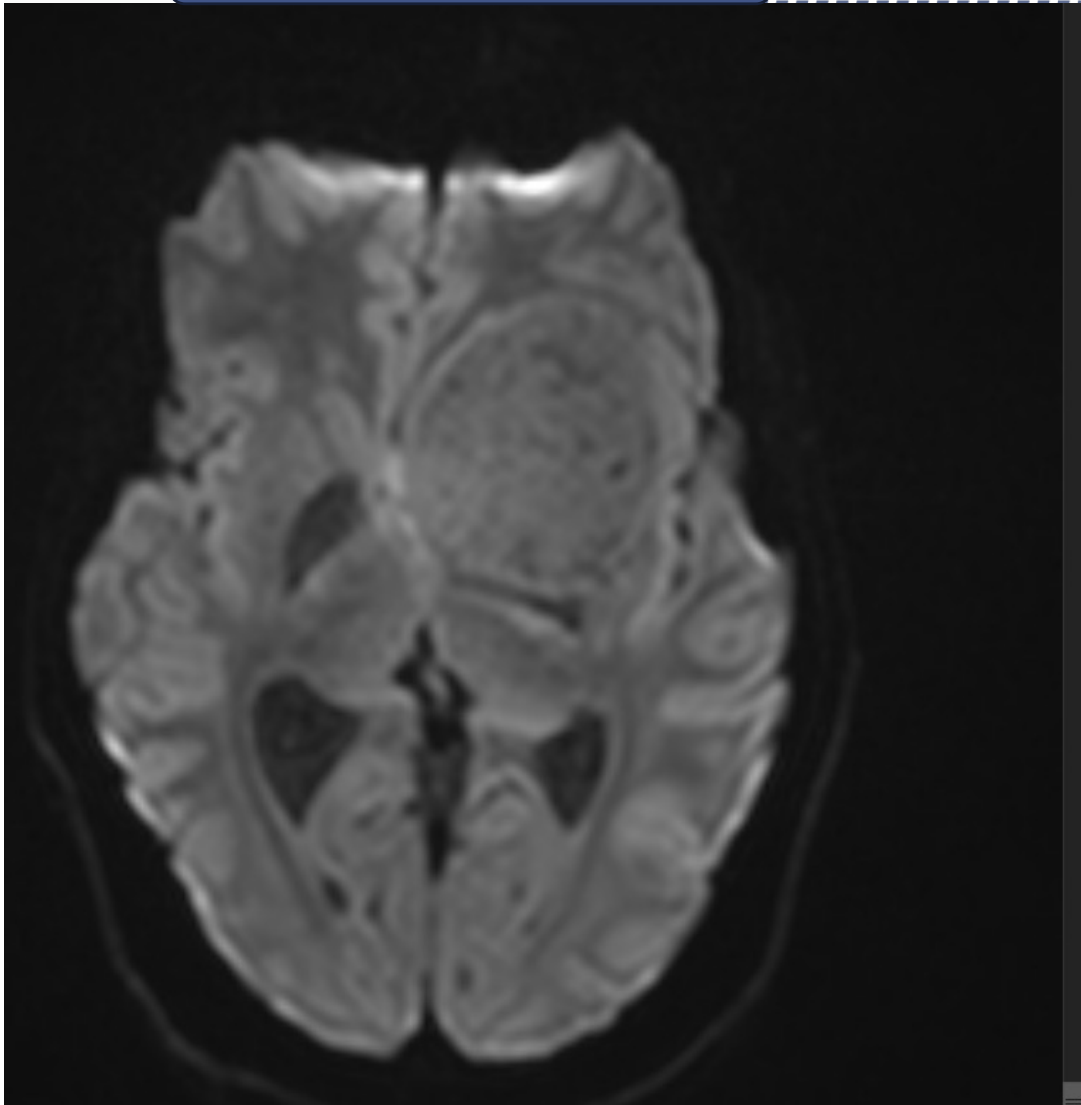
T2W images



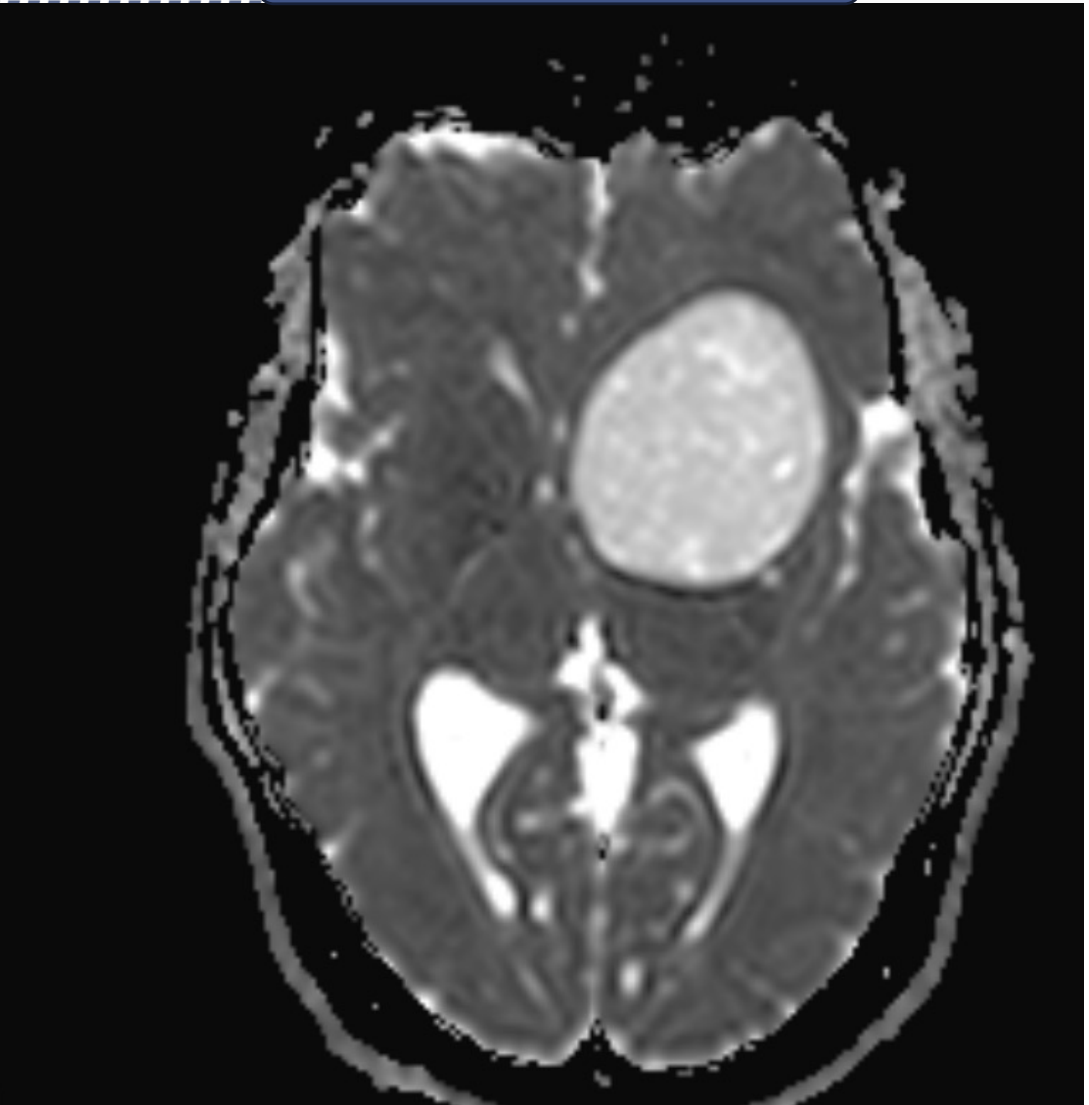
T1FSC+ images



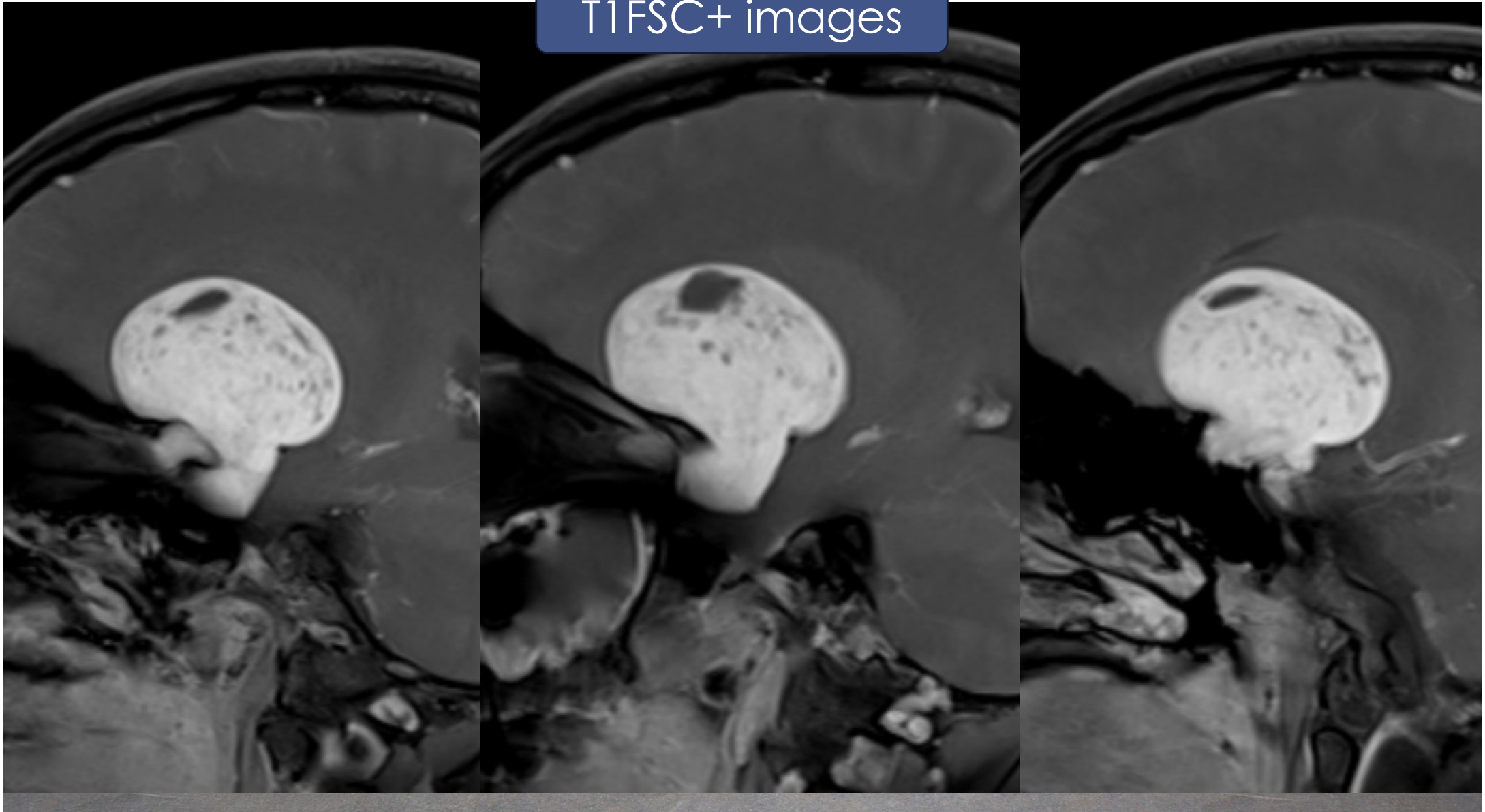
DWI



ADC

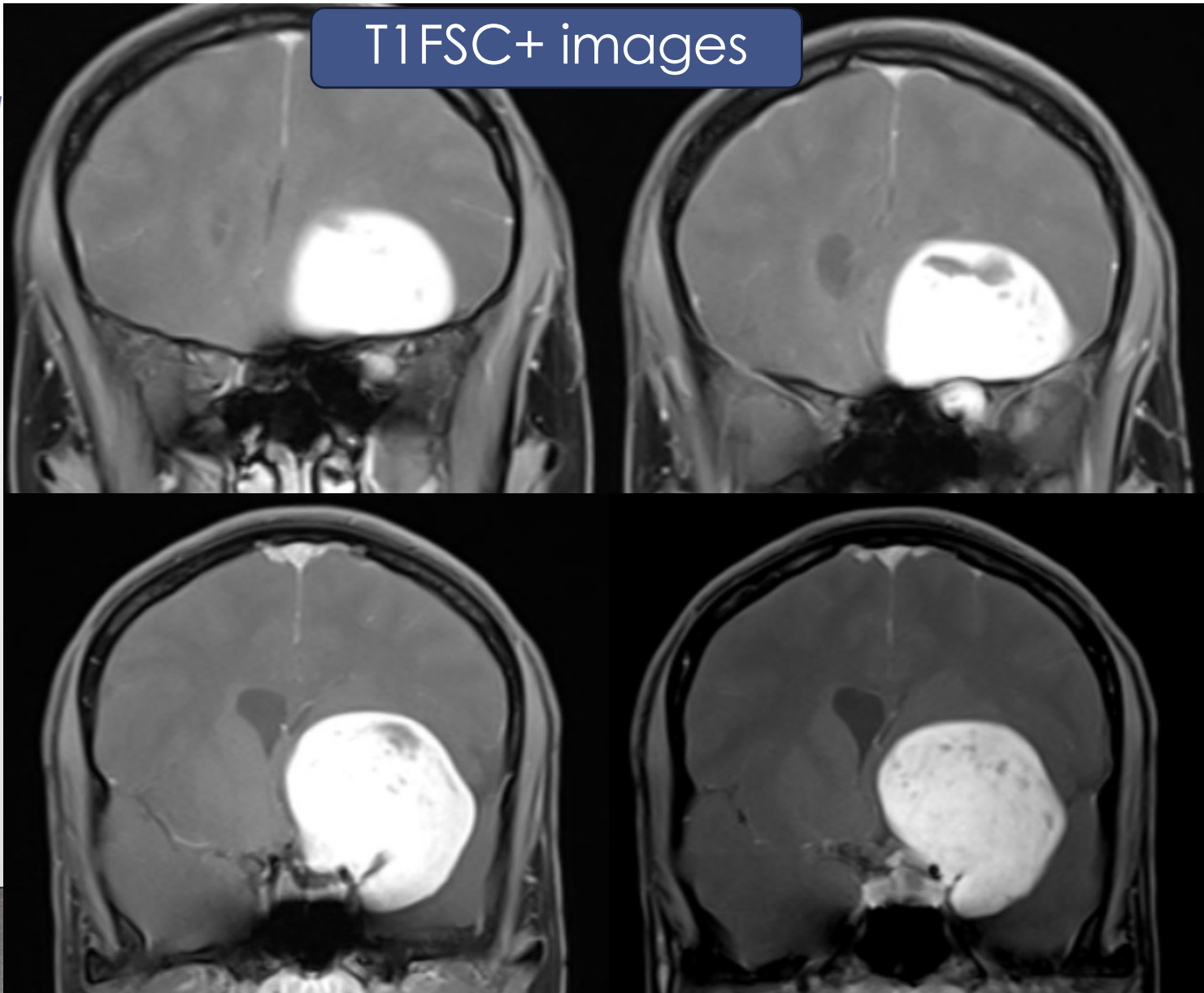


T1FSC+ images





T1FSC+ images



## FINDINGS



- Fairly well defined avidly homogeneously enhancing T2 hyperintense, T1 hypointense & FLAIR isointense solid lesion with few internal non enhancing cystic areas arising from the intracanalicular segment of the left optic nerve in the retro -bulbar space which is seen to extend posteriorly through the optic canal along to involve the optic chiasma.
- The lesion is also seen extending into the left parasellar region, left MCA cistern causing mass effect on the left frontal and left anterior temporal lobes with effacement of the left lateral ventricle and mild midline shift towards the right side.
- No evidence of restricted diffusion on DWI sequence within the lesion.
- No evidence of blooming within the lesion.



## **Final diagnosis**

1. Opto-chiasmatic glioma
2. Optic meningioma [Less likely]



## REFERENCES

- Osborn's Brain Imaging, Pathology and Anatomy 2<sup>nd</sup> Edition
- Chapman & Nakielnny's Aids to Radiological Differential Diagnosis 7<sup>th</sup> Edition
- Radiopaedia Case/Articles
- Radiographics article: Practical Approach to Orbital Lesions by Anatomic Compartments by Naves et al.





**THANK YOU**