



2025

KARNATAKA RADIOLOGY EDUCATION PROGRAM

CASE PRESENTATION

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PRESENTER:
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History:

- A 50 year old female comes with complaints of Right eye protrusion associated with redness and pain on eye movements and since 15days.
- Not associated with visual disturbances.
- No history of trauma.
- She is a k/c/o Thyroid disorder, discontinued thyroid medication 6months back(Currently in thyrotoxicosis).



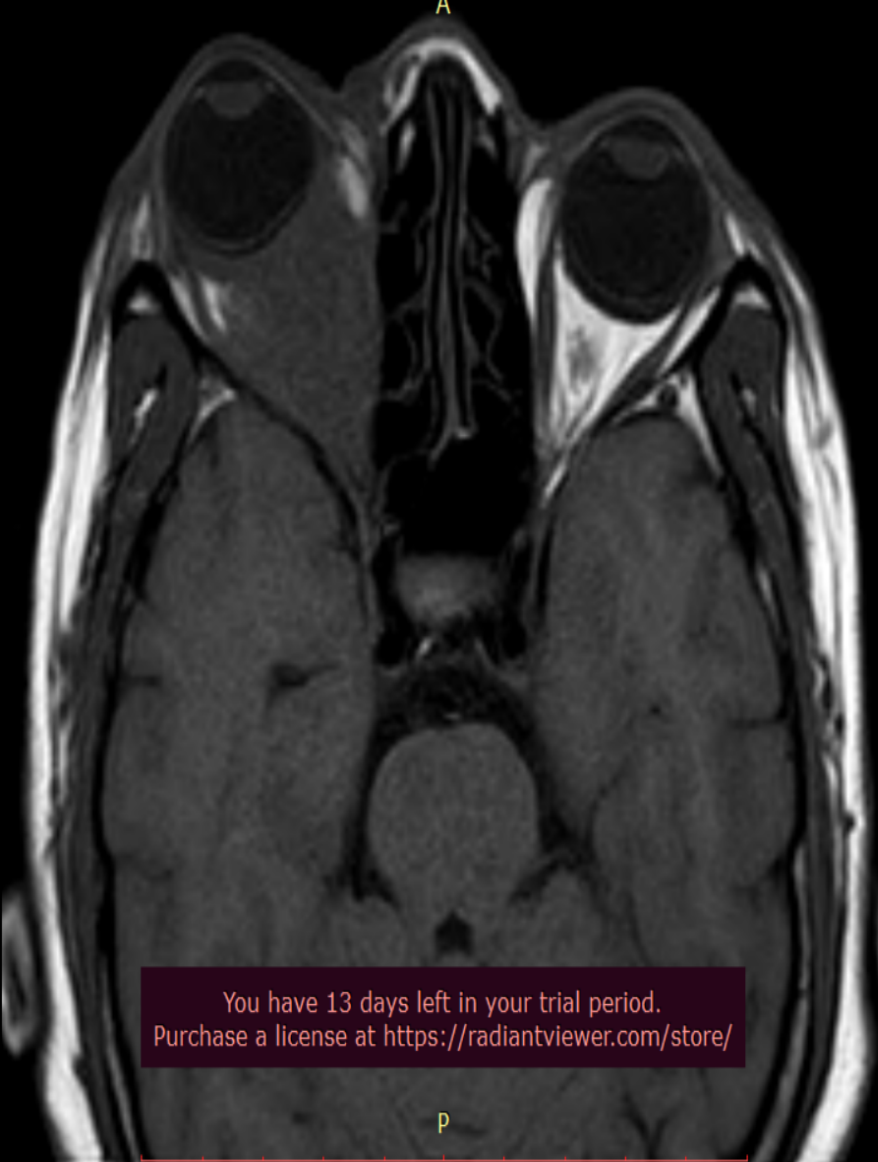
Ophthalmic examination

Vision was normal

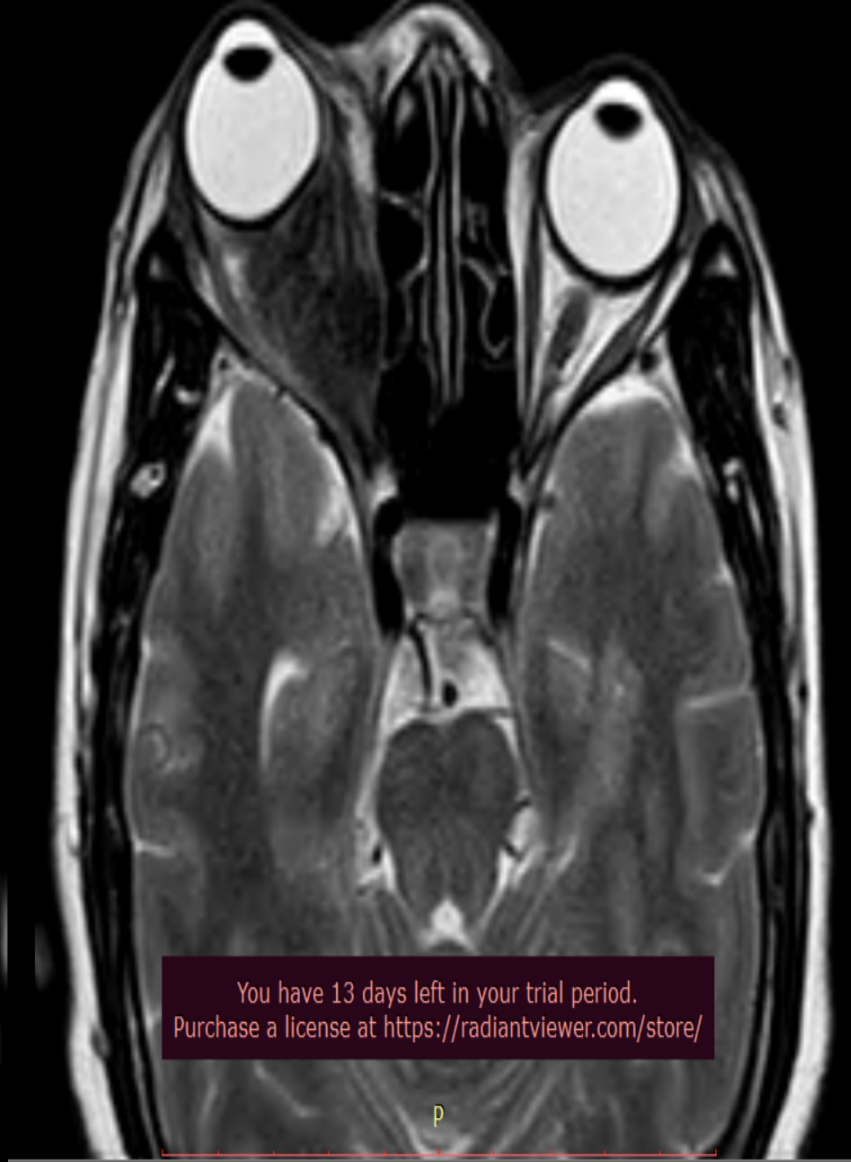
Right :6/12

Left : 6/9

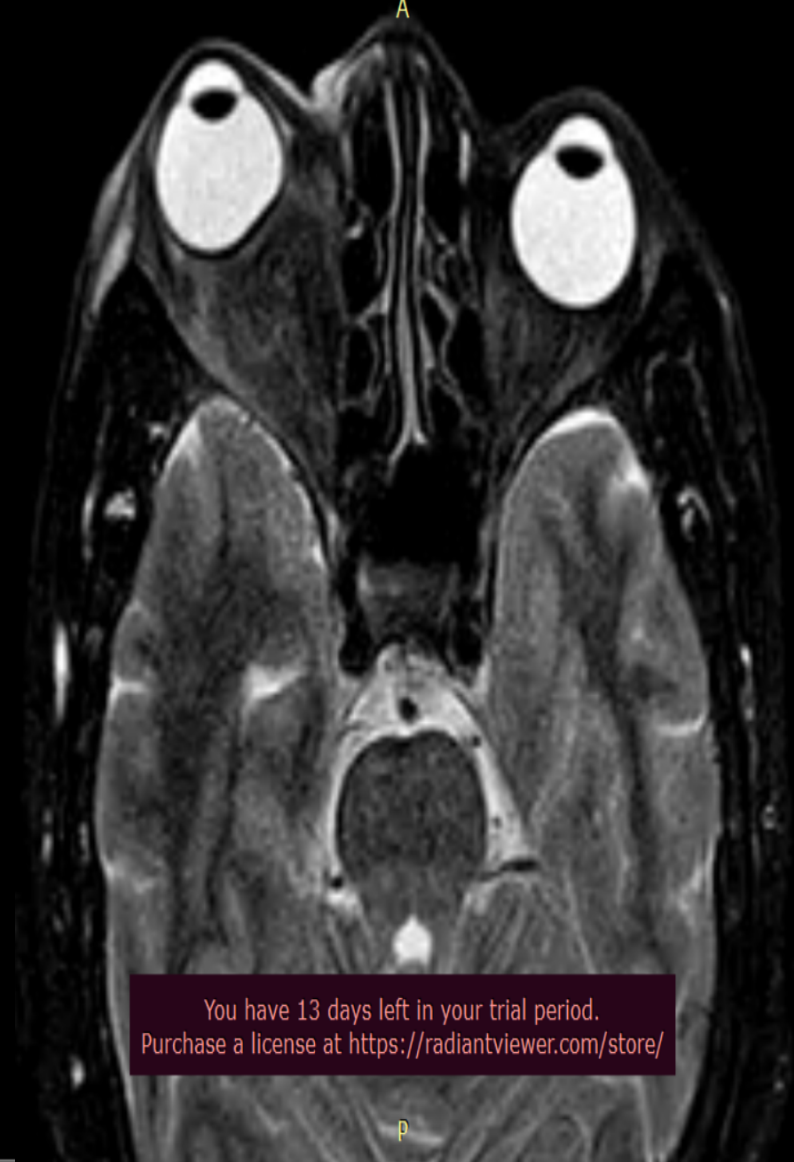
Inspection: Unilateral proptosis of right eye, skin over eyelids is stretched and shiny .



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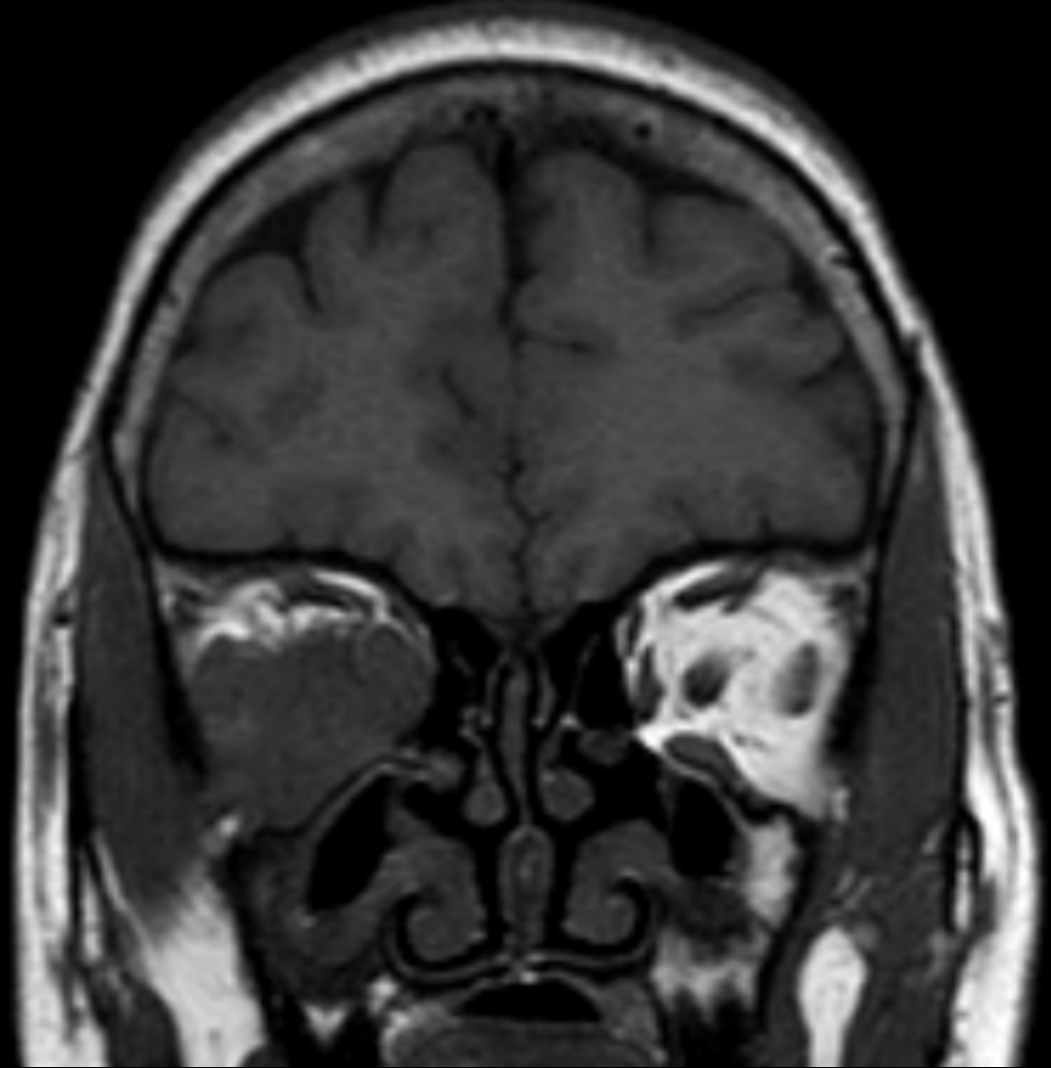
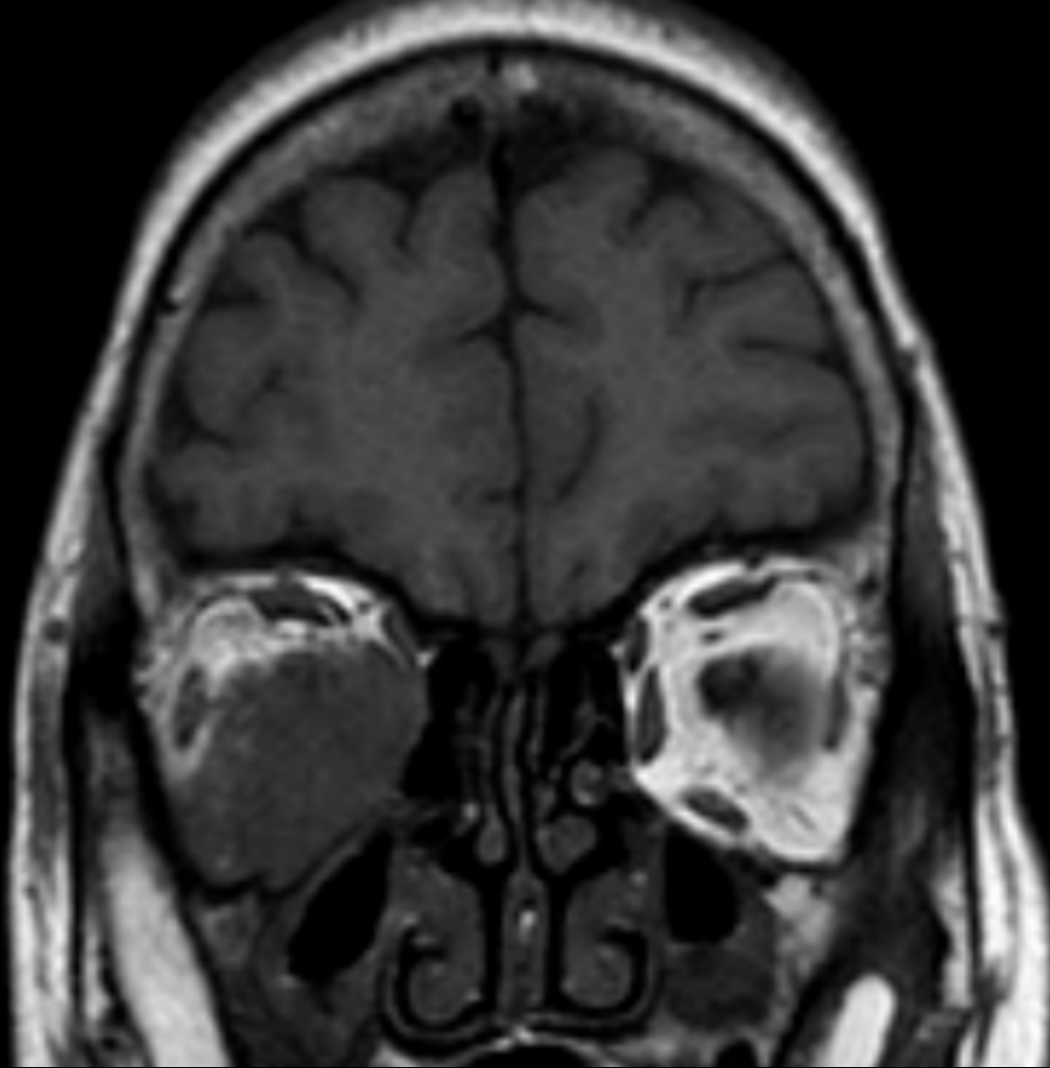


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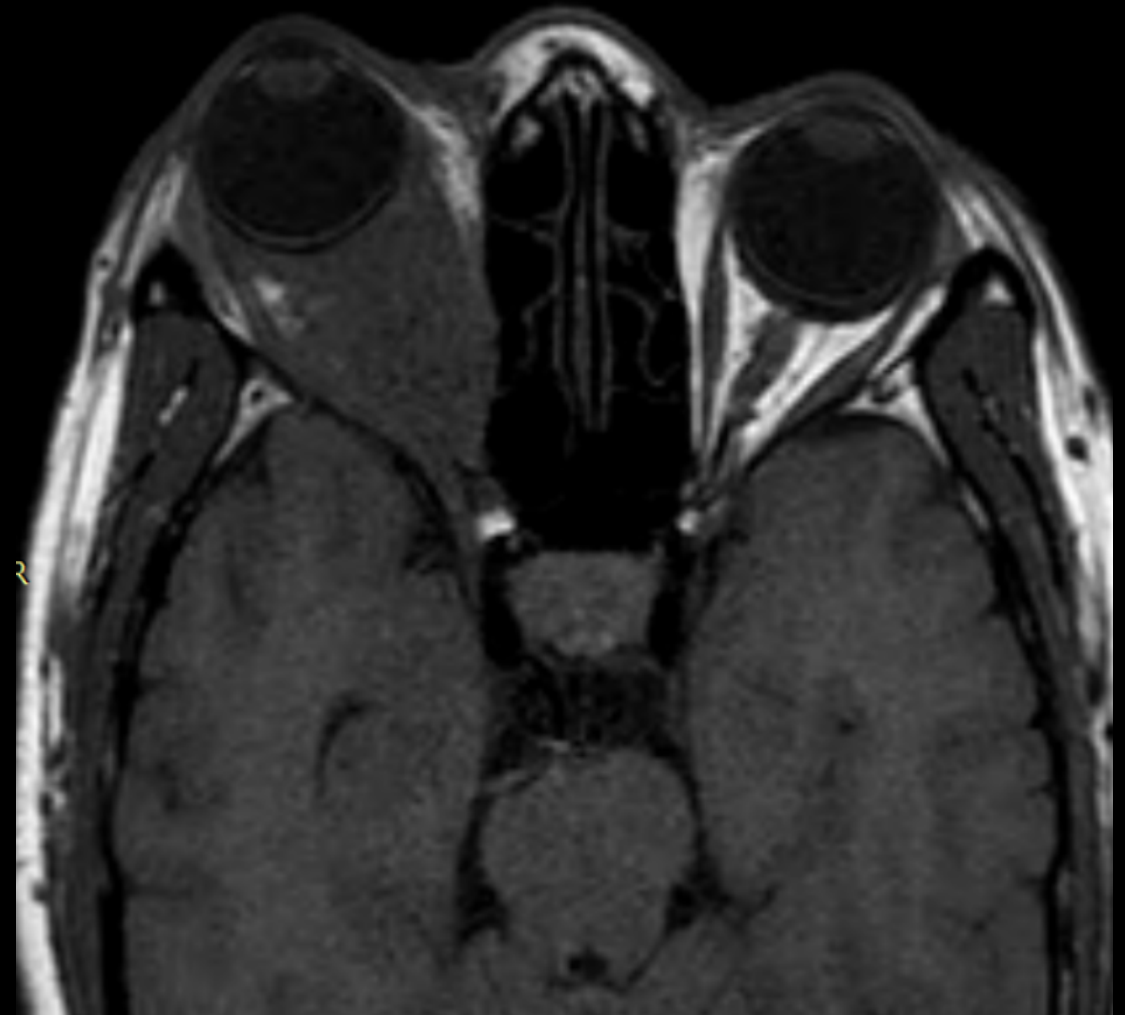
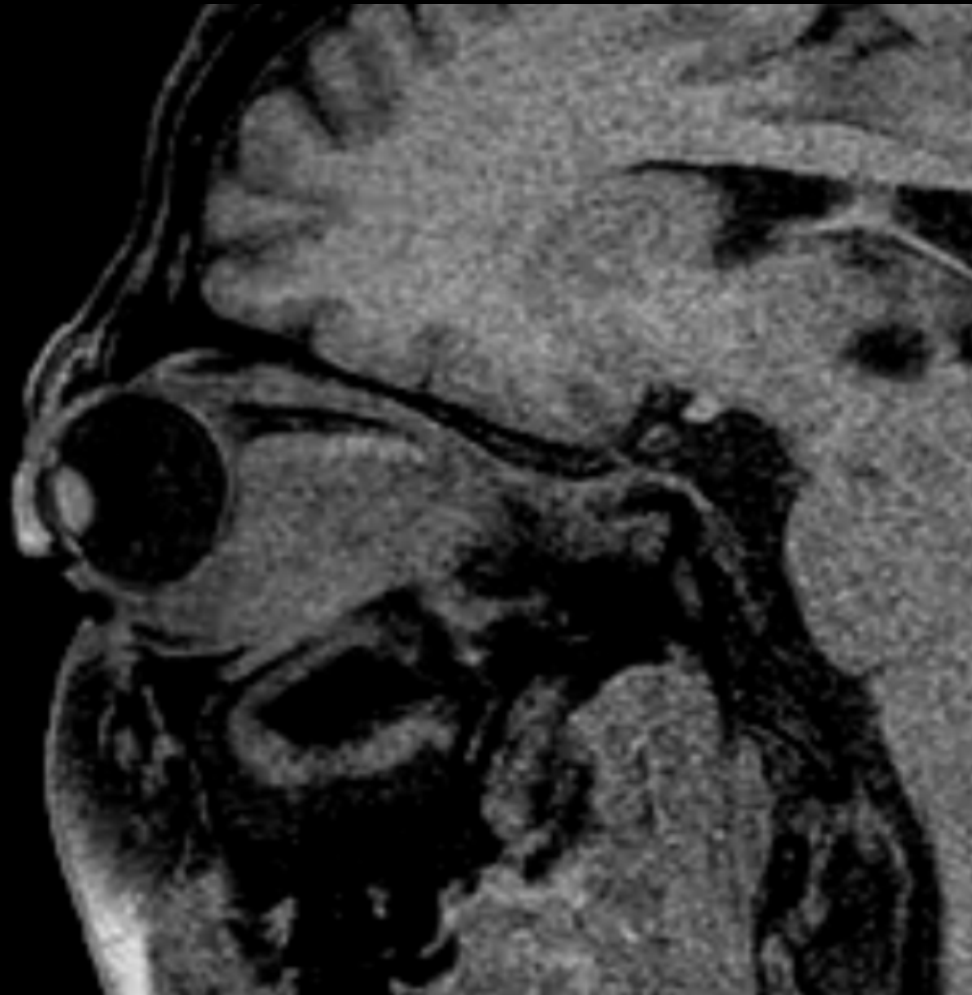


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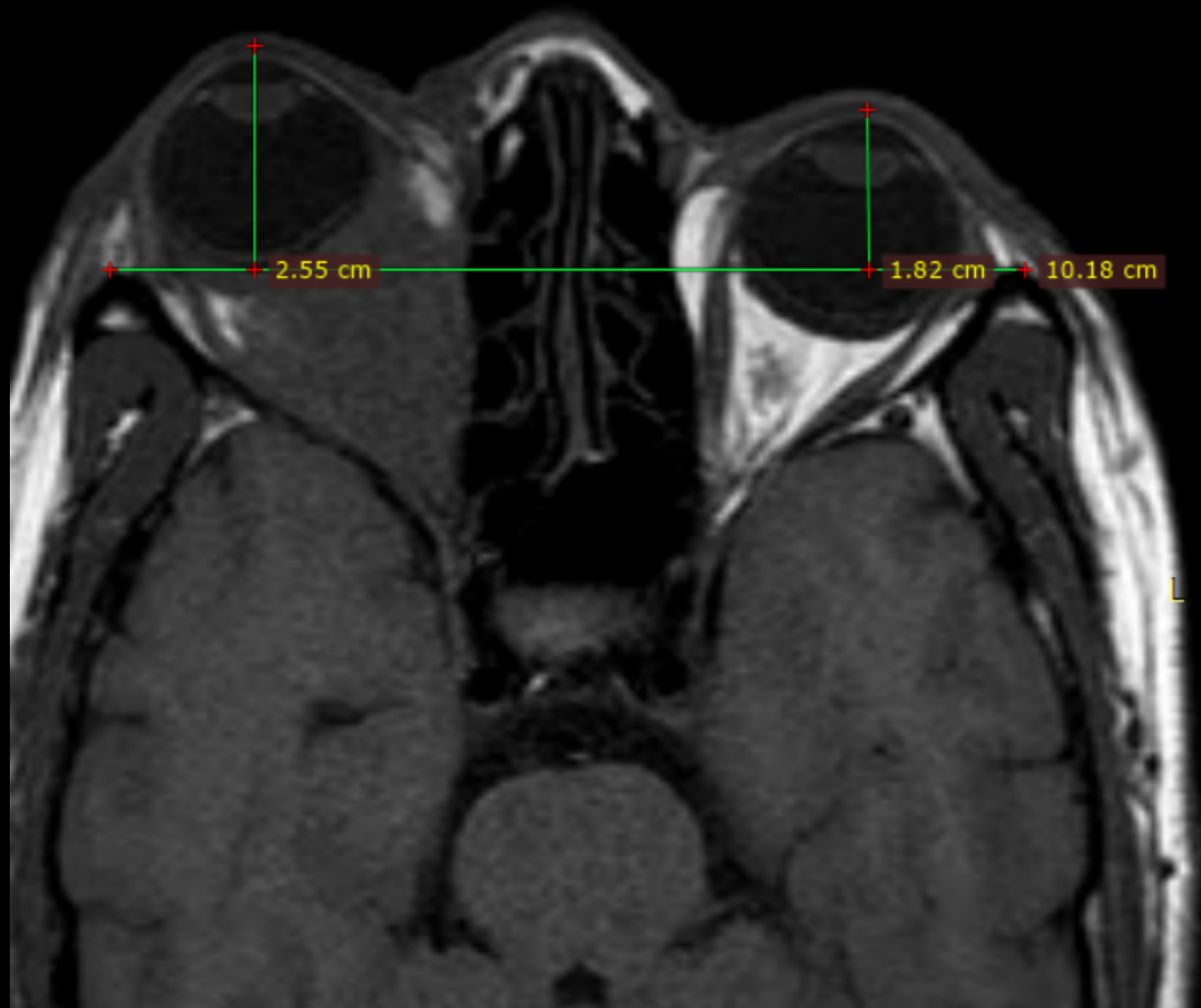
T1,T2,FLAIR Showing A solitary fairly well defined right sided intraconal soft tissue mass lesion involving retroorbital soft tissue which T1 hypointense and T2/STIR heterogeneously hypointense , extending to the orbital apex and extraconal compartment with obliteration of perioptic csf space , the lesion is seen indenting on the posteromedial part of sclera. parenchyma appears normal.



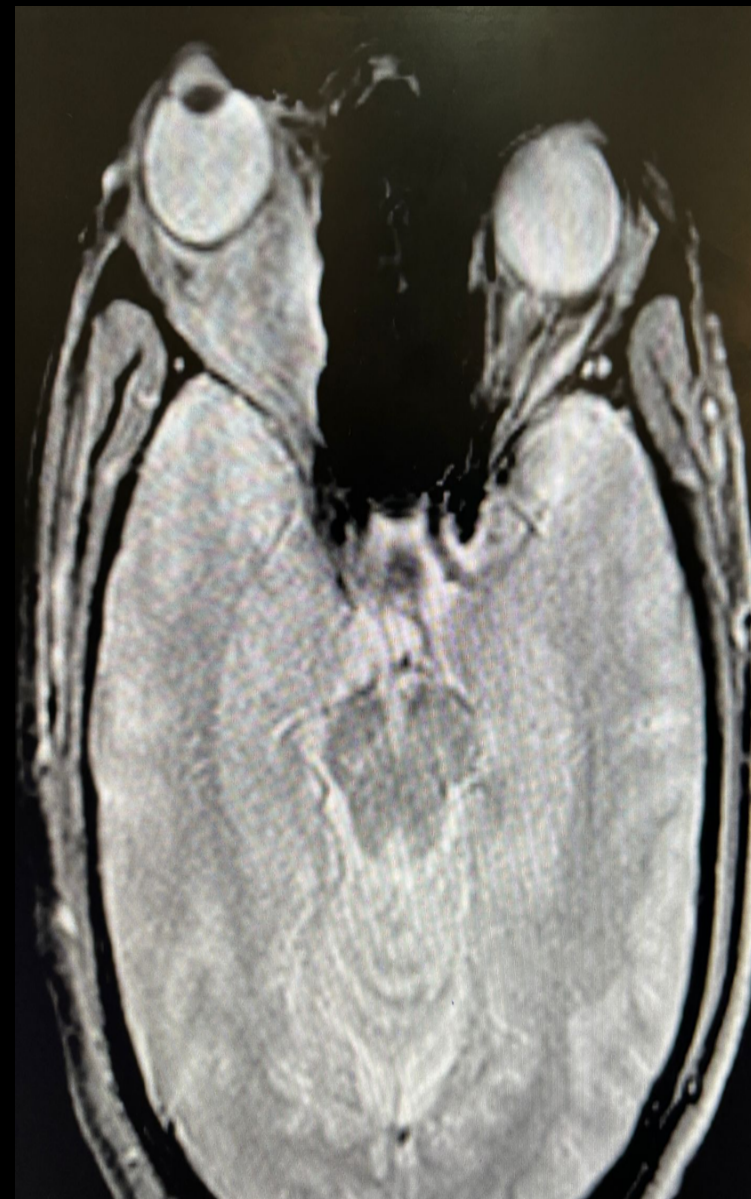
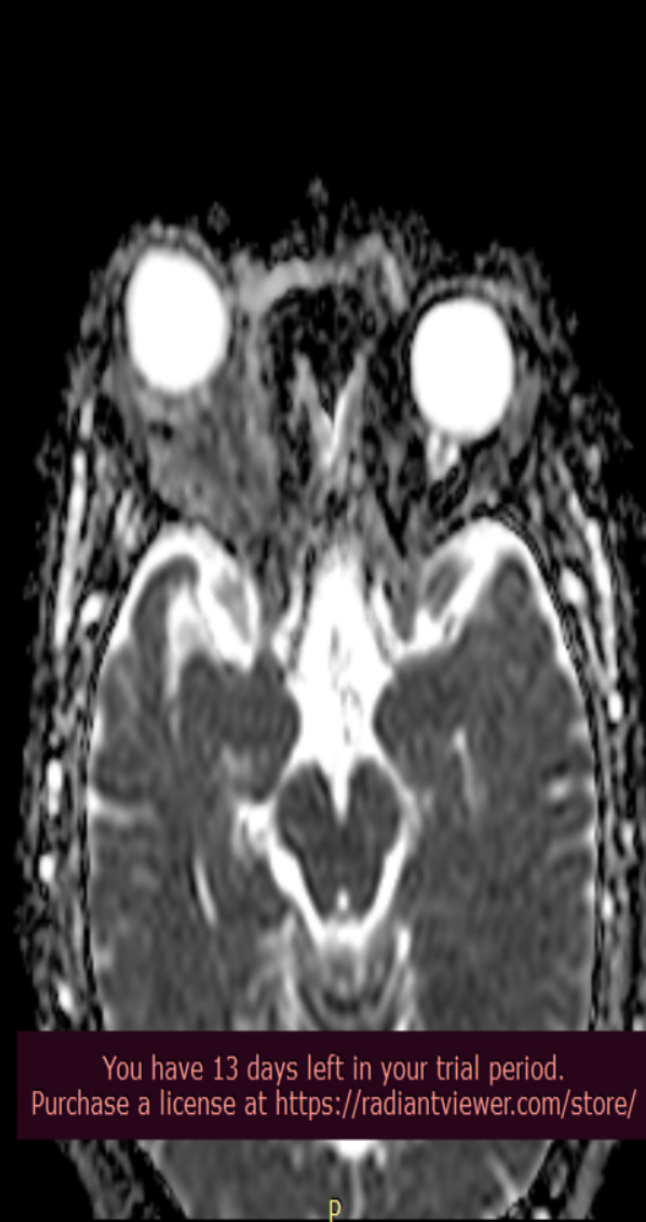
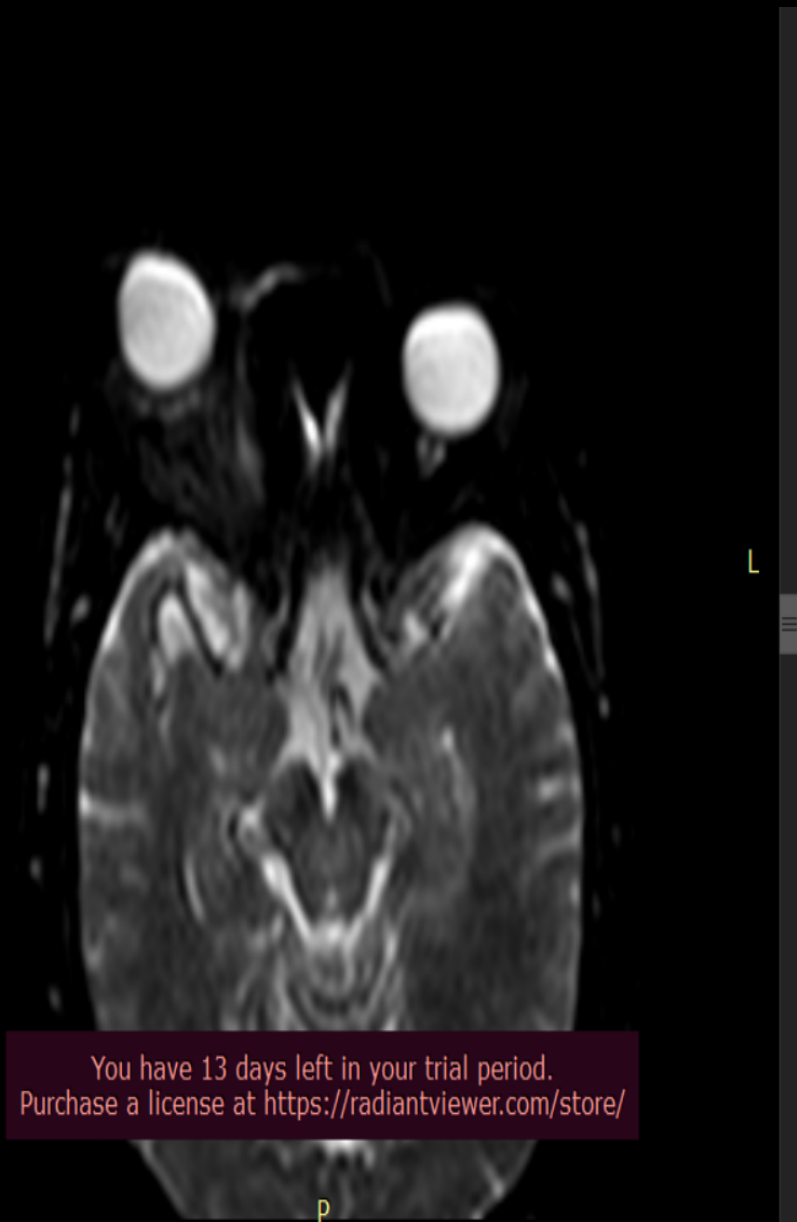
T1 Coronal : Showing non visualization of medial rectus muscle from its origin, inferior rectus and inferior oblique muscles, the lesion was abutting lateral rectus muscle, , superior rectus and sup oblique muscles appear normal. Extra ocular muscles of left orbit appear normal.



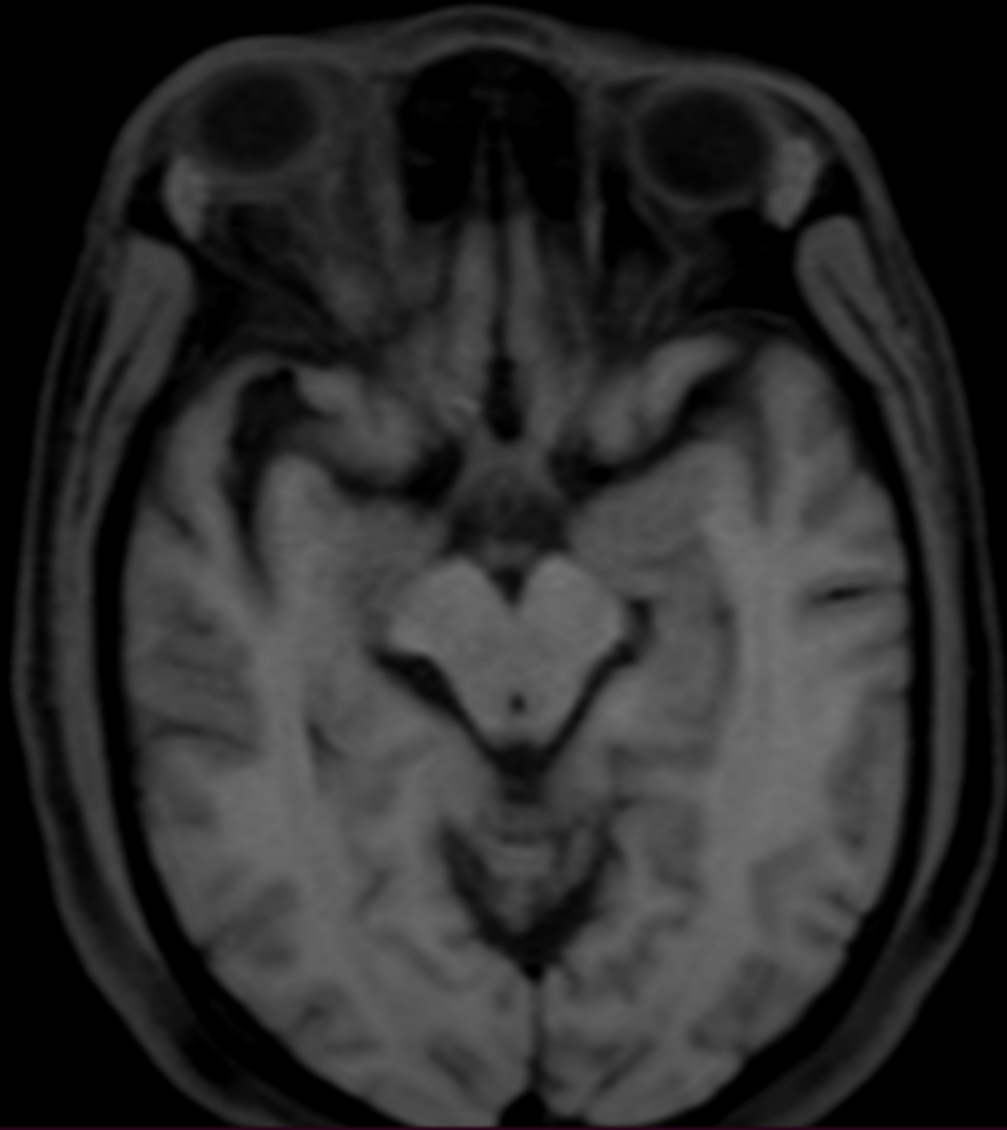
T1 Sag : The lesion is displacing the optic nerve supeolaterally with obliteration of peri optic CSF space



The distance of anterior margin of right globe to the inter zygomatic line is 25mm and posterior surface of globe is seen intersecting the inter zygomatic line- S/o proptosis, normal cutoff is up to 22mm.

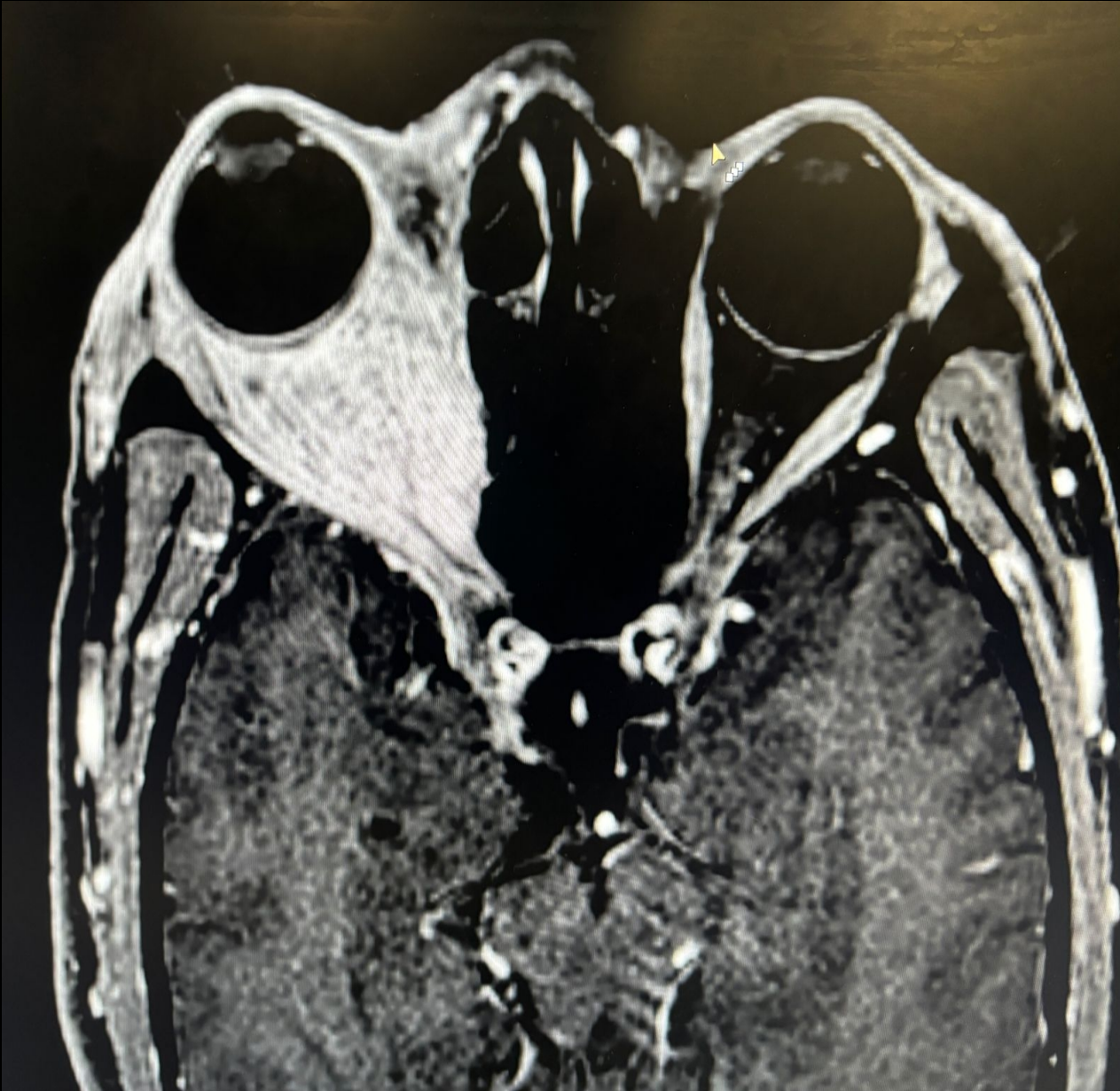


The lesion is not showing true diffusion restriction on DWI and no blooming on GRE.



Bilateral lacrimal glands appear normal.

POST CONTRAST:



The lesion shows homogenous avid enhancement. On post contrast study

Diagnosis:

- Fairly well defined, homogenously enhancing, intraconal soft tissue mass lesion of right orbit extending to the orbital apex and extraconal compartment with proptosis as described → Right Orbital Pseudotumor

	Orbital Pseudotumor	TAO or Thyroid ophthalmopathy	Orbital Lymphoma
Clinical presentation	Rapid onset, unilateral painful proptosis	M/C/C of proptosis in adults, Bilateral painless proptosis, Inferior rectus is M/C involved	Presents with orbital painless mas in superolateral quadrant. M/C in extraconal space.
Tendons involvement	Unilateral enlargement of EOM with involvement of tendinous insertions	Bilateral and symmetrical enlargement of EOM muscle bellies. Sparing tendinous insertions	Doesn't involve EOM, usually they are displaced by the mass.
T1	Hypo or isointense to EOM	Isointense	Iso to hypointense to muscle
T2	Hypointense due to fibrosis	Hyperintensity	Hyperintense
Post contrast	Moderate to marked diffuse enhancement	Mild heterogenous enhancement	Mild to moderate homogenous enhancement, with restricted diffusion
Associations	Associated with autoimmune conditions, IgG4, SLE, PAN, Hashimoto's thyroiditis	Associated with Graves disease	Associated with Chlamydia psittaci in some patients
Treatment	Responds well to steroids	Self limiting , spontaneously improves over 2-5 years.	Surgical resection, RT, CT & Antibiotic therapy

TAO or Graves ophthalmopathy



Bilateral symmetrical marked enlargement of EOM confined to muscle belly and the tendon is typically spared with this appearance is often referred to as "coke bottle" in nature ([Coca-Cola bottle sign](#)), Enlargement of EOM causing crowding at the orbital apex.

THANK YOU