



KARNATAKA RADIOLOGY EDUCATION PROGRAM

CASE PRESENTATION

Case of Intraorbital lymphoma

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CLINICAL HISTORY

- A 72 year old male presented with the complaints of non pulsatile proptosis of left eye for the last 1 month with blurring of vision
- No history of trauma to eye
- Medial history: Not a known case of malignancy
- Surgical history: No previous major surgeries
- Habits: Tobacco chewer for last 50 years
- Comorbidities: Known hypertensive (On treatment) and non diabetic

Patient was advised for
MRI BRAIN and ORBIT (plain plus contrast)

IMAGING FINDINGS

T1: isointense

T2 and FLAIR: hypointense

DWI sequence: showing diffusion restriction

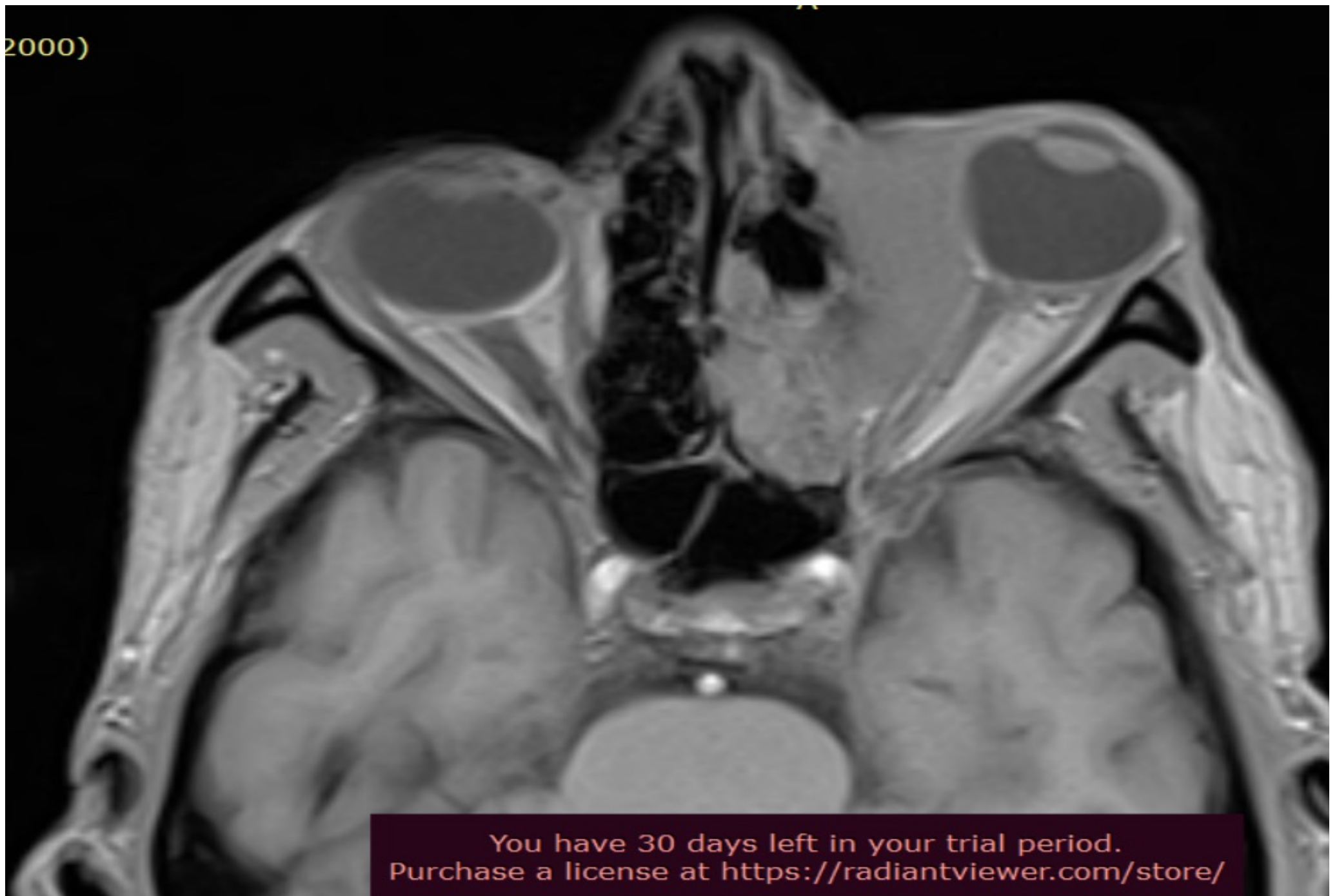
SWI sequence: No evidence of blooming

Contrast administration: Homogeneous enhancement

Location: Extraconal compartment of left orbit
causing mass effect on globe resulting in its lateral displacement

Medially, the lesion shows erosion of medial wall of orbit with extension into nasal cavity resulting in erosion of superior and middle turbinates involving few of ethmoidal air cells on right side with superior extension into frontal sinus

2000)



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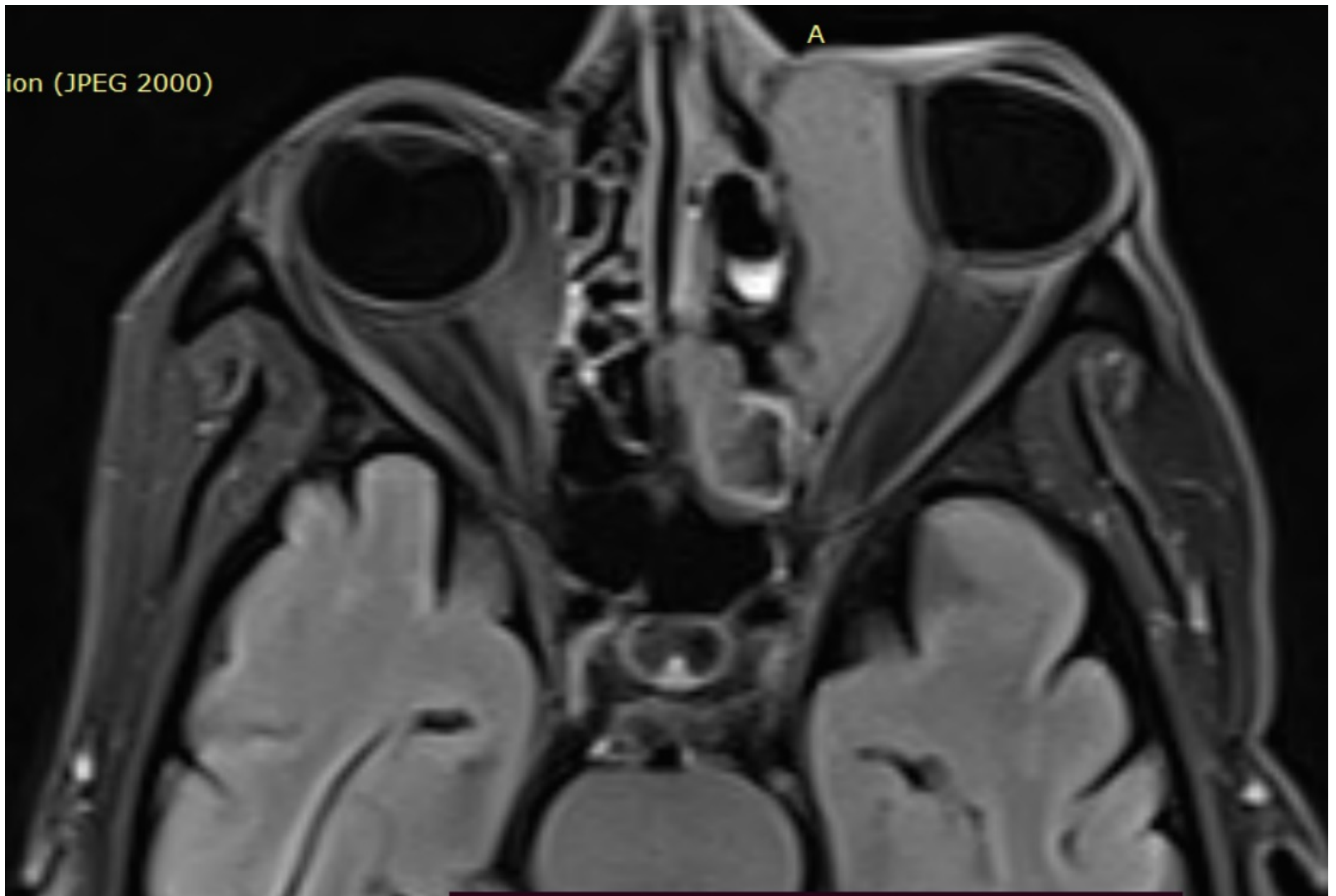
T1 sequence:

PEG 2000)

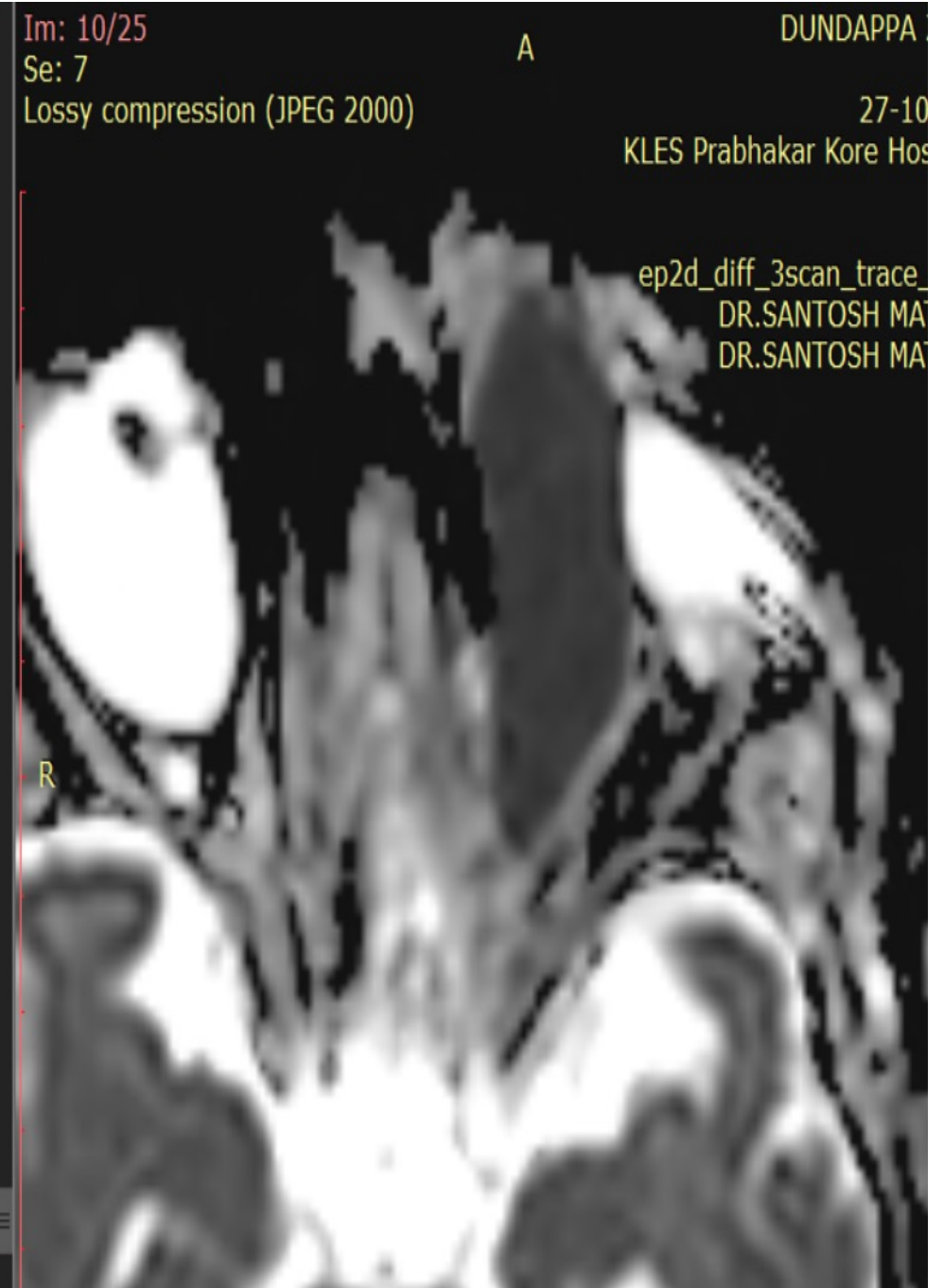
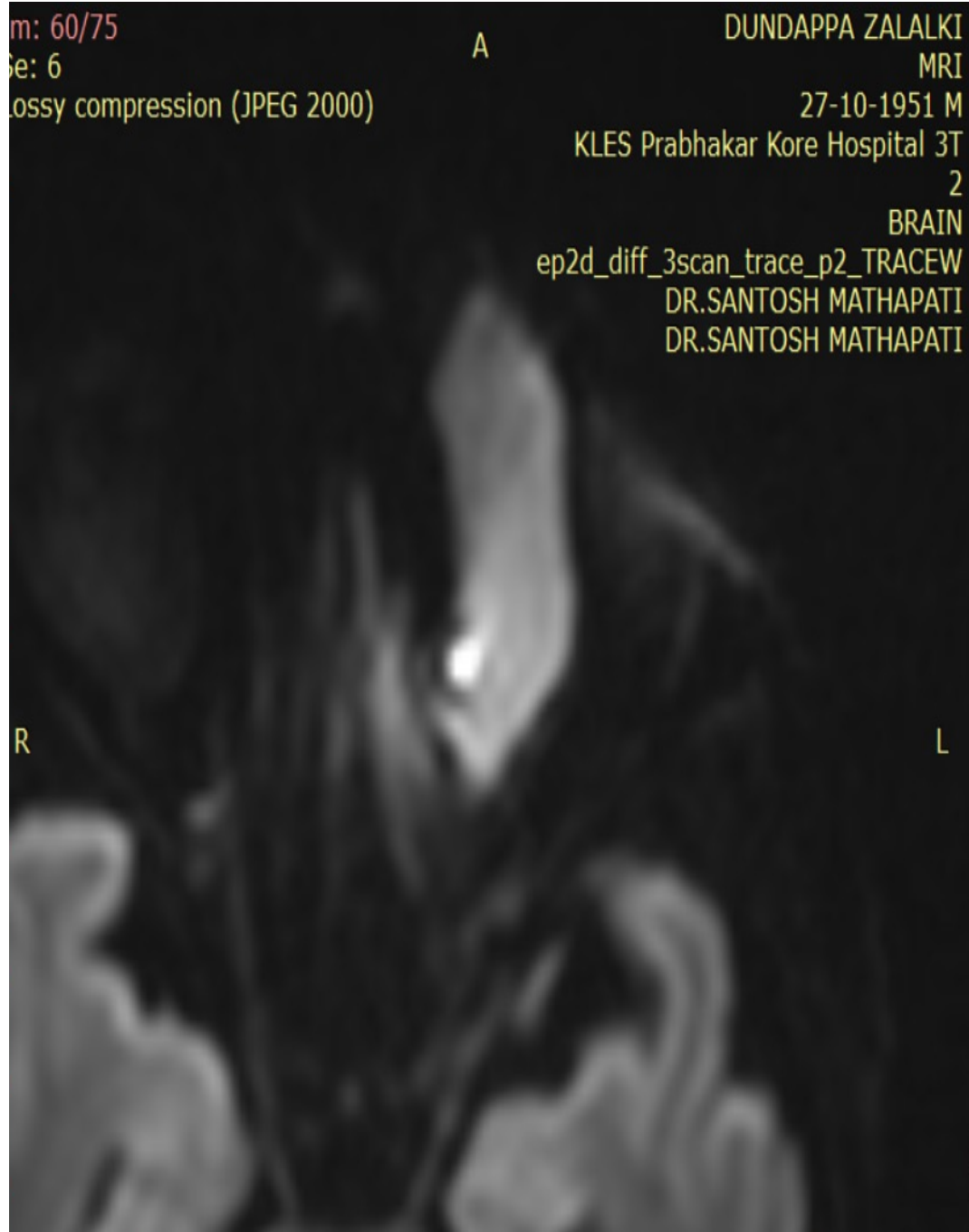
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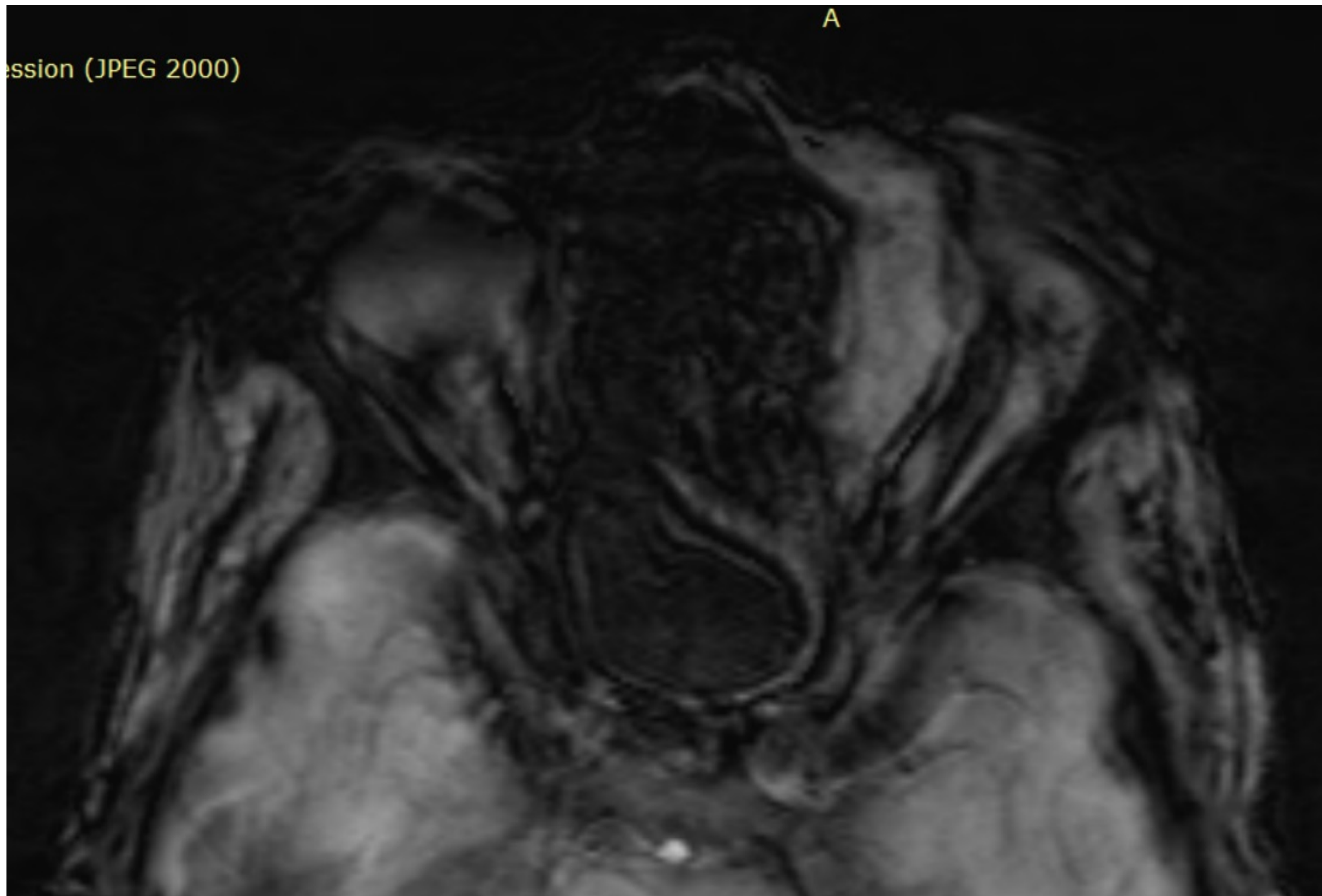
T2 sequence



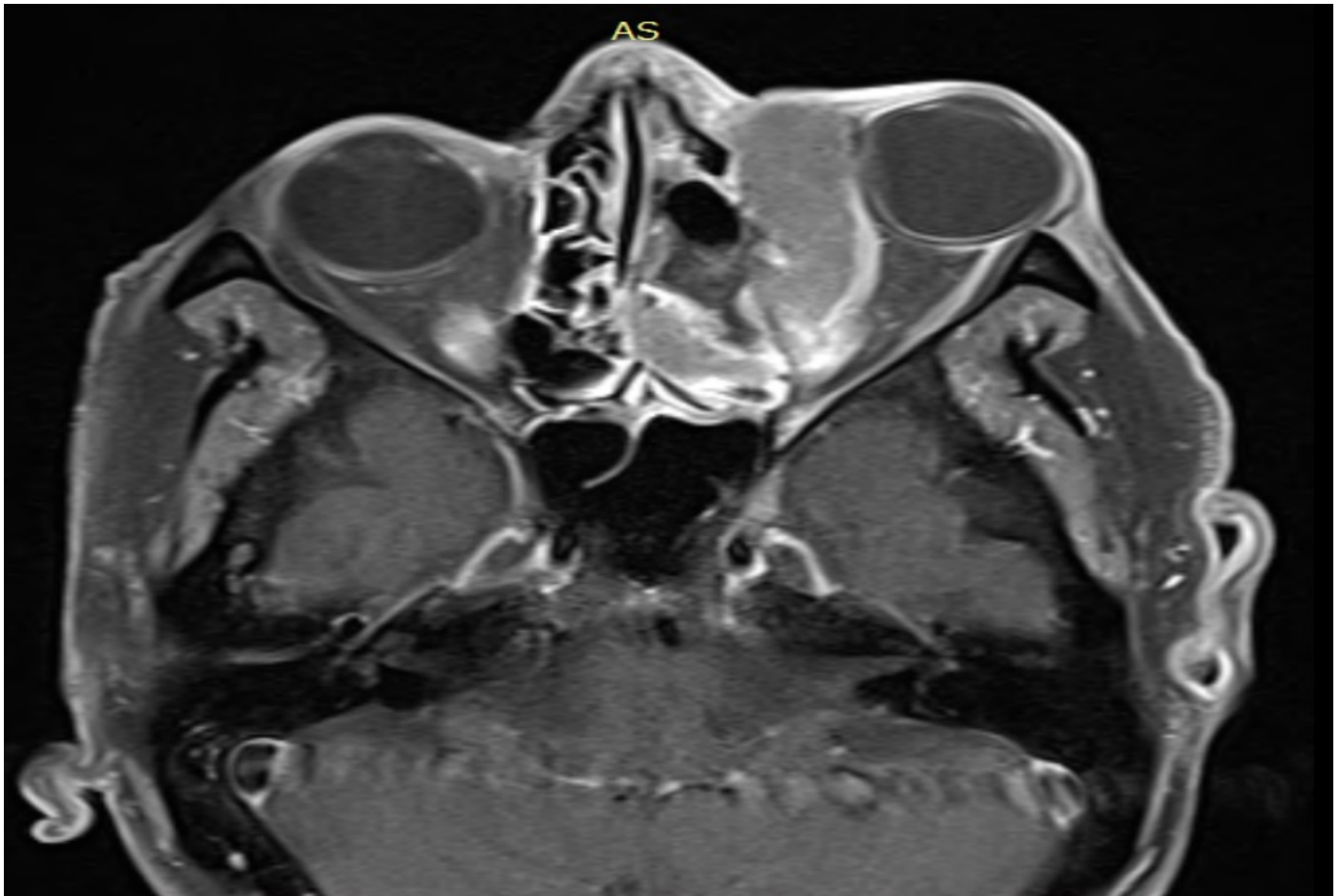
FLAIR Sequence



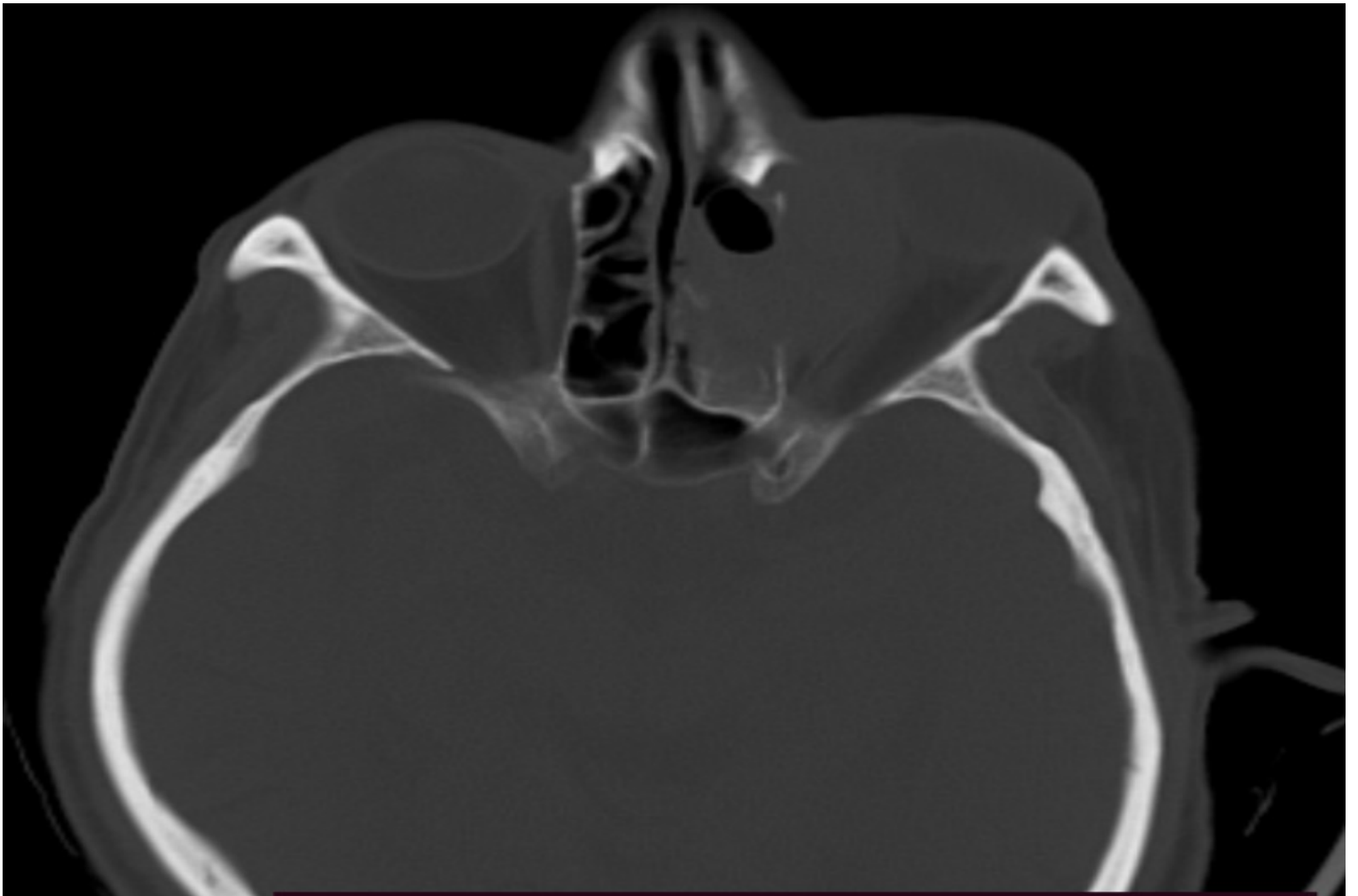
DWI Sequence



SWI Sequence



Contrast Study



CT Bone window image

DIFFERENTIAL DIAGNOSIS

- From extraconal compartment with extension into paranasal sinuses
 - Lymphoma
 - Nerve sheath tumour
 - Rhabdomyosarcoma
 - Intraorbital ewings sarcoma
 - Metastases
- Olfactory neuroblastoma
- Less likely tumours from paranasal sinuses with extension into extraorbital compartment - Sinonasal squamous cell carcinoma, sinonasal adenocarcinoma, Sinonasal undifferentiated carcinoma, sinonasal mucosal melanoma

- Biopsy reports – Diffuse Large B Cell Lymphoma
- Patient was advised for CECT thorax and abdomen to rule out primary vs secondary lymphoma

RefNo.

DEPARTMENT OF MEDICAL ONCOLOGY

Date :

Discharge Summary

Name : Dundappa Basappa Zalaki Age:73y Sex :M

IP No:10106063

Consultant: DrRohan Bhise (DM Medical Oncology)

DOA: 15/11/24

DOD:16/11/24

Diagnosis:DLBCL.

History: K/C/O DLBCL admitted for 1st cycle Chemotherapy.

Examination:PS 1 ,CVS NAD,RS:NAD, P/A soft.


Investigations: CBC:normal,LFT:normal,RFT:Normal.2D Echo normal.

Chemotherapy Given:Cap Apripitant 125 mg ,Inj Ristova 590 mg ,Inj Endoxan 1100 mg,Inj Doxorubicin 75 mg,Inj Vincristine 2 mg With premedications. Inj Pegstim 6 mg s/c.

Advise at discharge:Tab Pantocid 40 mg 1-0-1 x 5 days,Tab Emset 4 mg 1-0-1 x 5 days.Tab Omnacortil 20 mg 5-0-0 x 5 days,Tab Apripitant 80 mg D2D3,Syp Cremaffin 15 ml hs.

Normal diet allowed freshly prepared.Freshly cut fruits allowed.Kindly report immediately if patient develops fever,loose stools,cough with expectoration and sore throat.

Next admission on 6/12/24,CBC,RFT,LFT on 5/12/24.


Dr Rohan Bhise

Consultant Medical Oncologist

FINAL DIAGNOSIS

- Patient was finally diagnosed as primary intraorbital lymphoma

- Currently patient is on chemotherapy

Completed one cycle of chemotherapy with

- Rituxumab
- Doxorubicin
- Vincristine
- Cyclophosphamide

- **Primary lymphoma of the orbit** is one of the most common orbital tumours and accounts for as much as half of all orbital malignancies.
- Orbital lymphomas account for only 2% of all lymphomas but constitute 5-15% of all extranodal lymphomas and approximately 50% of all primary orbital malignancies in adults.
- Typically patients are between 50 and 70 years of age, with no recognised gender predilection
- present with an orbital mass, usually in the superior lateral quadrant, in proximity to the lacrimal gland ^{1,6}:
- Palpable mass, Exophthalmos, Ptosis, diplopia and abnormal ocular movements
- Generally the mass is painless.

Radiographic findings

- Orbital lymphoma usually appears as a soft tissue mass, either involving the conjunctiva (especially in the case of orbital adnexal MALT lymphoma (OAML)) or elsewhere in the orbit.
- Although the extraocular muscles may be surrounded or displaced by the mass, they can usually be identified as not being the origin of the tumour, helpful in distinguishing lymphomas from other orbital masses.
- Invasion of the globe or optic nerve is rare.

CT

- On non-contrast CT, the mass is usually homogeneous in density, either isodense or slightly hyperdense when compared to the extraocular muscles.
- Following administration of contrast, only mild to moderate enhancement is seen, similar again to the extraocular muscles and lacrimal gland

- **MRI**

Similar to intracranial lymphoma, the densely cellular nature of these tumours with high nucleus-to-cytoplasm ratio results in relatively specific appearances :

Signal characteristics include:

- **T1:** iso- to hypointense to muscle
- **T2:** iso- to hyperintense to muscle
- **T1 C+ (Gd):** homogeneous enhancement
- **DWI:** increased signal intensity - restricted diffusion
- **ADC:** reduced values - restricted diffusion

Thank you