

2025

KARNATAKA RADIOLOGY EDUCATION PROGRAM

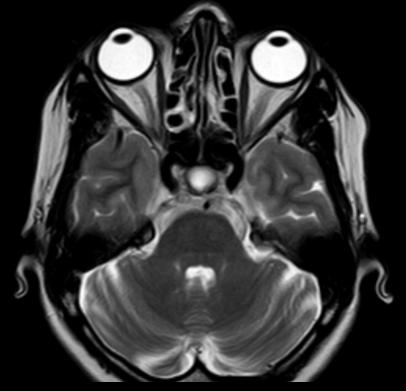
CASE PRESENTATION

MODERATOR: DR AVINASH M KATUR
ASSISSTANT PROFESSOR, DEPT OF RADIO-DIAGNOSIS
JJMMC, DAVANGERE

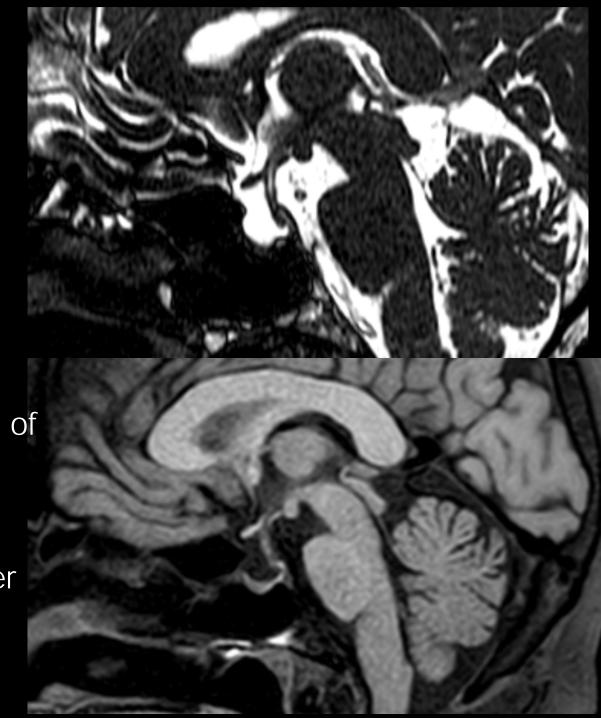
PRESENTOR: Dr Rachana H, PG Resident

CLINICAL HISTORY

- 44y/o female patient c/o headache since 1year aggravated since 1month.
- Headache is more in the frontal region.
- Not associated with tearing of eyes, photophobia, phonophobia, nausea.
- On fundoscopy: Papilledema noted in right eye. Rest of the neurological examination was normal.
- Lab investigations were within normal limits
- BMI- 28kg/m2

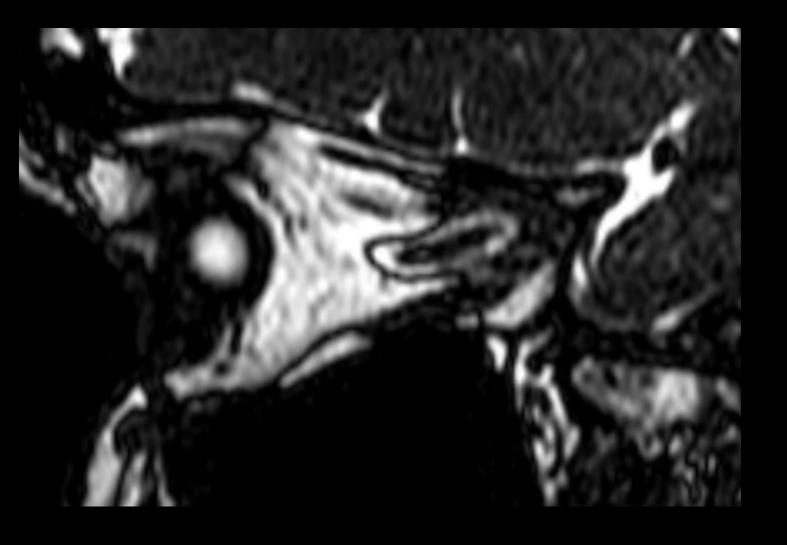


Ciss T2 W MR image axial section at the level of sella, showing CSF intensity in the sella and sagittal section showing CSF signal intensity and T1 W MR image sagittal section showing thinned out pituitary with concave upper border occupying less than 2/3rd of sella with moderate loss of pituitary height → s/o partial empty sella

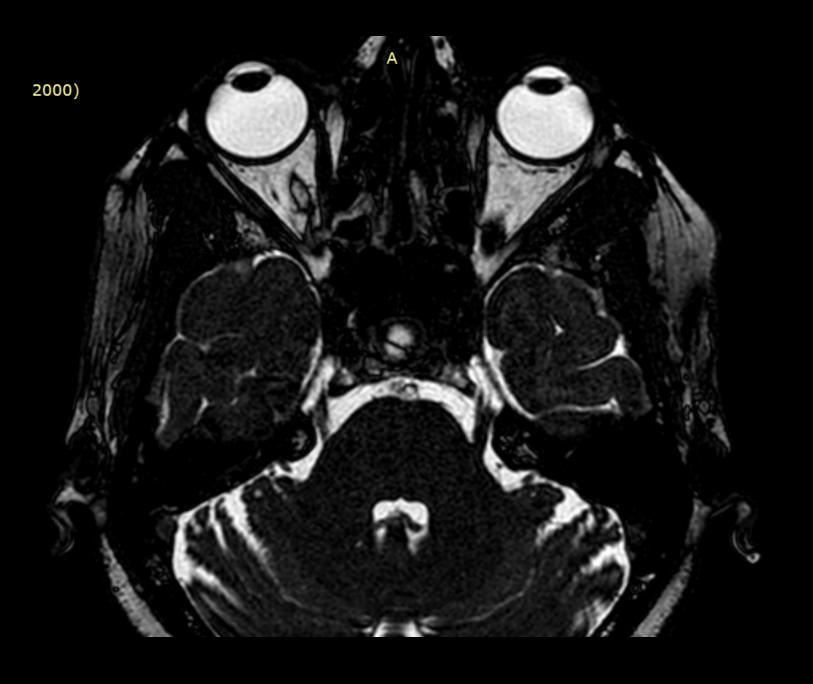




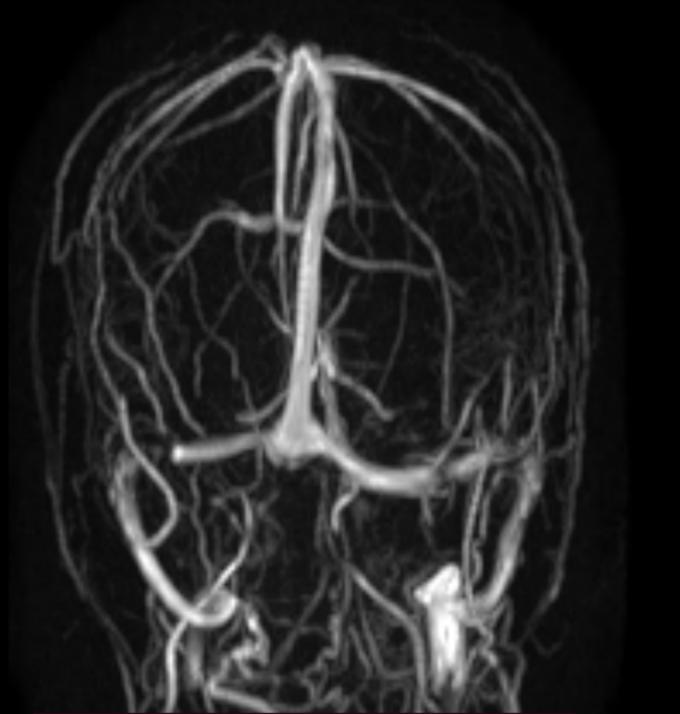
Ciss T2 W axial section at the level of orbits showing intraocular disc protrusion and flattening of posterior sclera on the right side (radiological sign of papilledema) and enlarged nerve sheath bilaterally with prominent peri optic CSF spaces bilaterally.



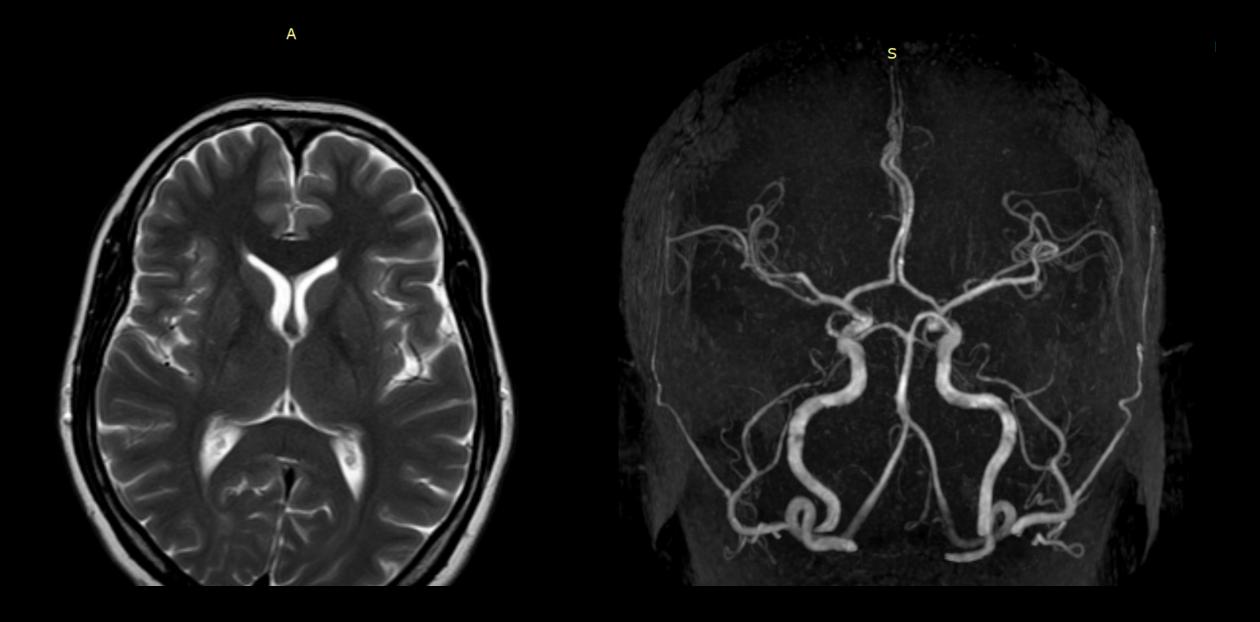
Cini clip showing tortuous optic nerve in the intraorbital course and intraoptic disc bulge.



Ciss T2 W axial section showing prominent Meckel cave bilaterally



MRV showing stenosis at junction of right transverse and sigmoid sinus, and stenosis of left transverse sinus



Impression:

- Bilateral tortuous optic nerve in intraorbital course with flattening of the posterior sclera and intraoptic disc bulge on the right side and prominent peri optic CSF spaces with enlarged optic nerve sheath.
- Partial empty sella
- Prominent Meckel's cave bilaterally
- Narrowing of distal 1/3rd of bilateral transverse sinuses
- → F/S/O Idiopathic intracranial hypertension

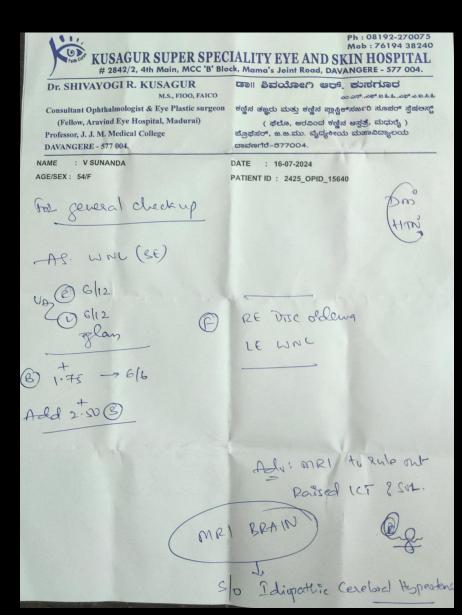
Treatment

- Weight loss
- Carbonic anhydrase inhibitors- acetazolamide, topiramate
- Invasive treatment options reserved for refractory cases:
- Venous sinus stenting for transverse sinus stenosis
- Optic nerve sheath fenestration if vision is acutely threatened

Imaging:

| Orbits | Enlarged arachnoid outpouchings | Others |
|--|---|--|
| Optic nerve sheath diameter> 4.8-6.2 mm or subarachnoid space >2mm | Partially empty sella | Transverse sinus stenosis/narrowing/ hypoplasia. Jugular venous stenosis |
| Posterior globe flattening | Enlargement of Meckel cave and oculomotor cistern | Acquired cerebellar tonsillar ectopia |
| Optic nerve tortuosity in vertical or horizontal planes | Arachnoid pits (aberrant arachnoid granulations) seen in temporal bone/ sphenoid wing | Slit like ventricles |
| Papilledema/ optic nerve head protrusion | Prominent peri vascular spaces | Increased sub cutaneous fat thickness in scalp and neck |

Follow up



tals. Diamx

THANK YOU