



2025

KARNATAKA RADIOLOGY EDUCATION PROGRAM

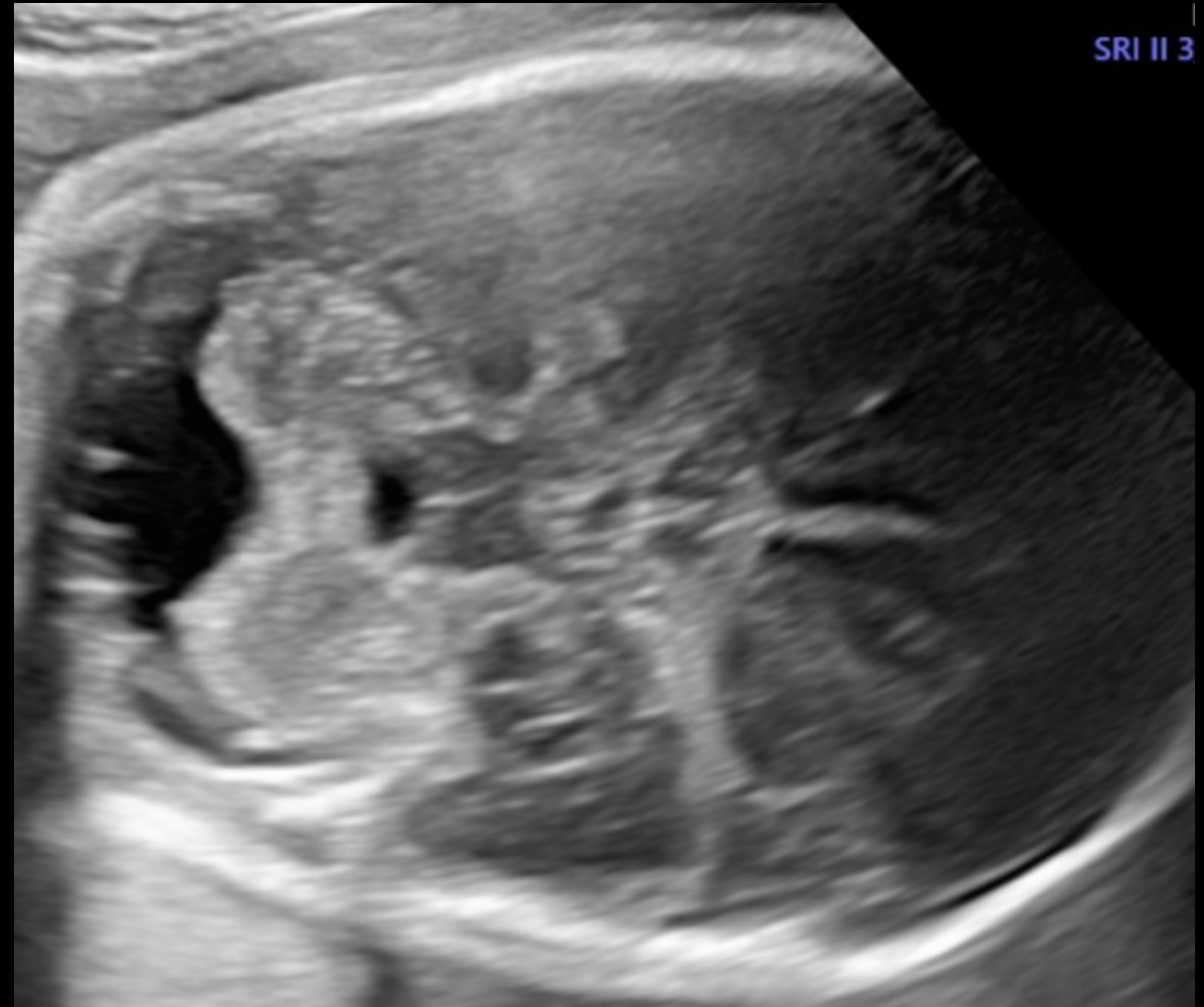
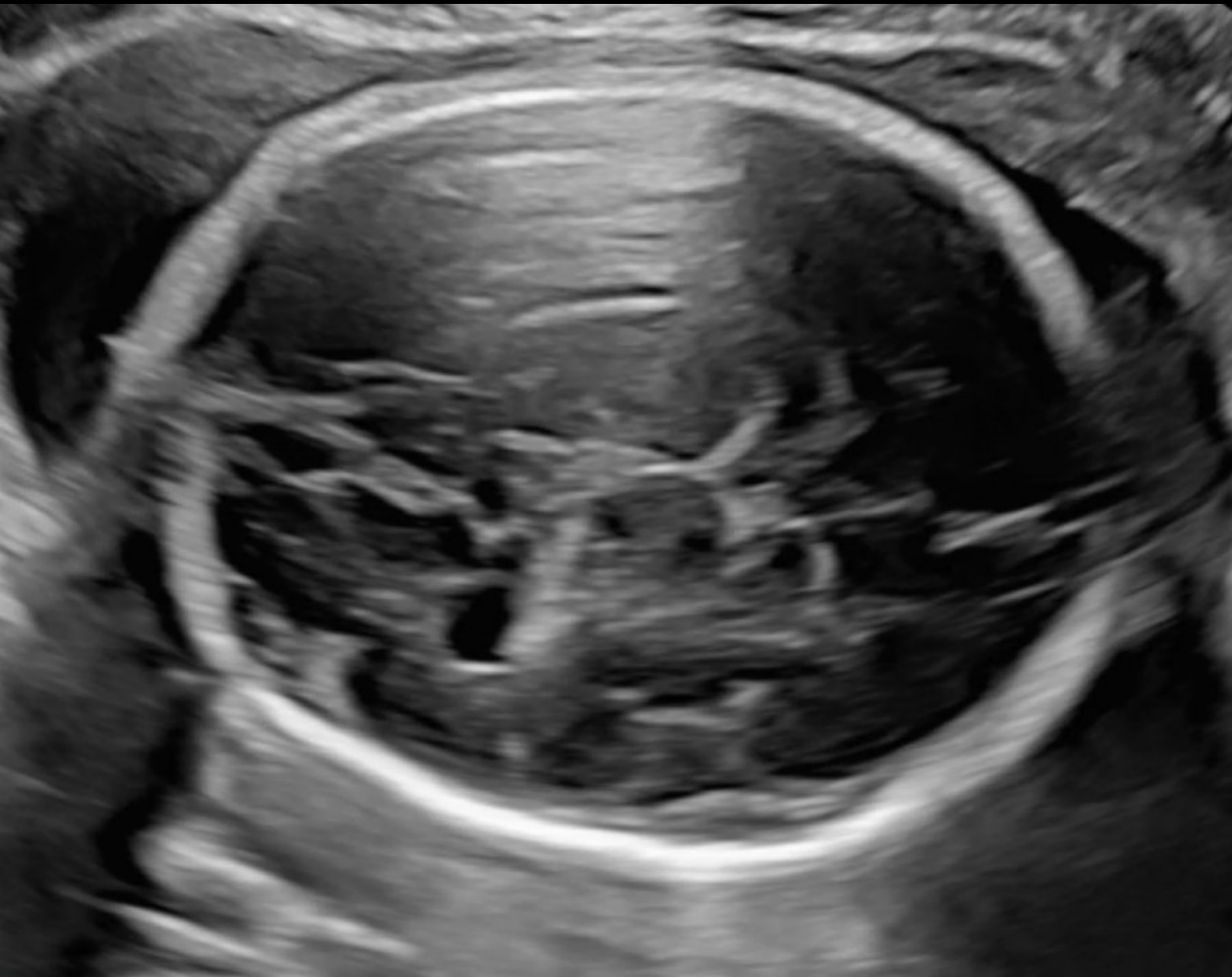
DEPT. OF RADIOLOGICAL DIAGNOSIS, JMMMC,
DAVANGERE

Mentor: Dr. Sowmya J , Assistant professor

Presenter: Dr. Rachana , PG Resident

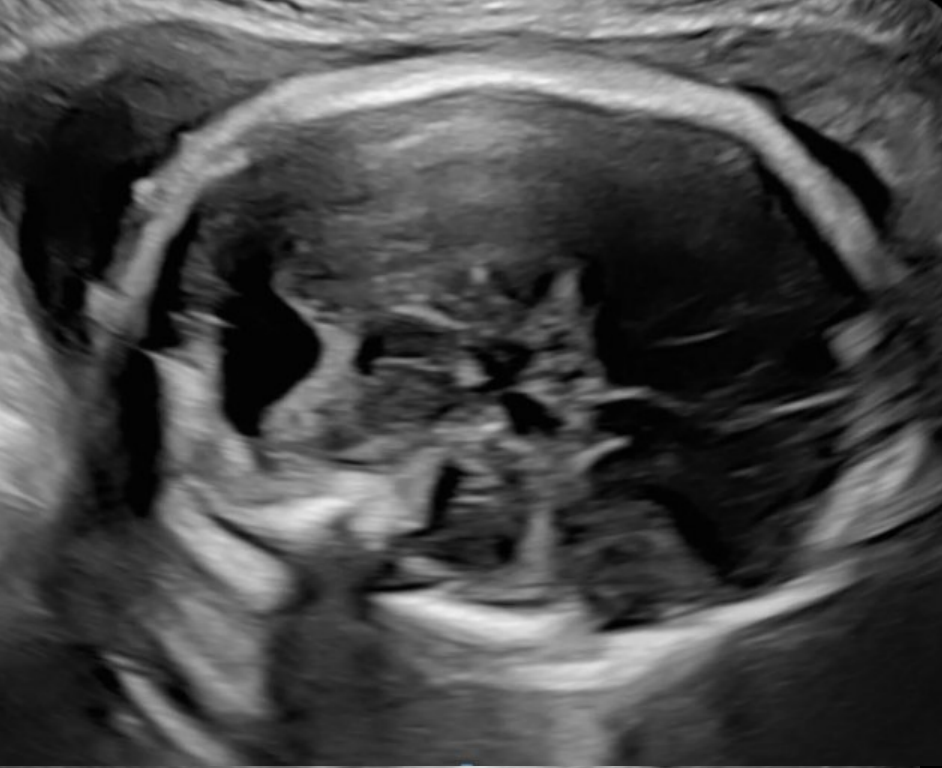
Case 1

- 30 year G2P1L1
- LMP – 21/09/2024
- Dating/ NT scan done at 12w 6d shows single live intrauterine gestation with GA assigned as per LMP (LMP EDD: 28/06/2025).
- Anomaly scan done at 21w 4d was normal (outside)
- Growth scan done at outside centre, at 29w 4d, showed a posterior fossa cyst- ?Mega cisterna magna/ Blake pouch cyst/ vermian hypoplasia.
- Patient was referred to our department for fetal NSG to characterize the cyst.

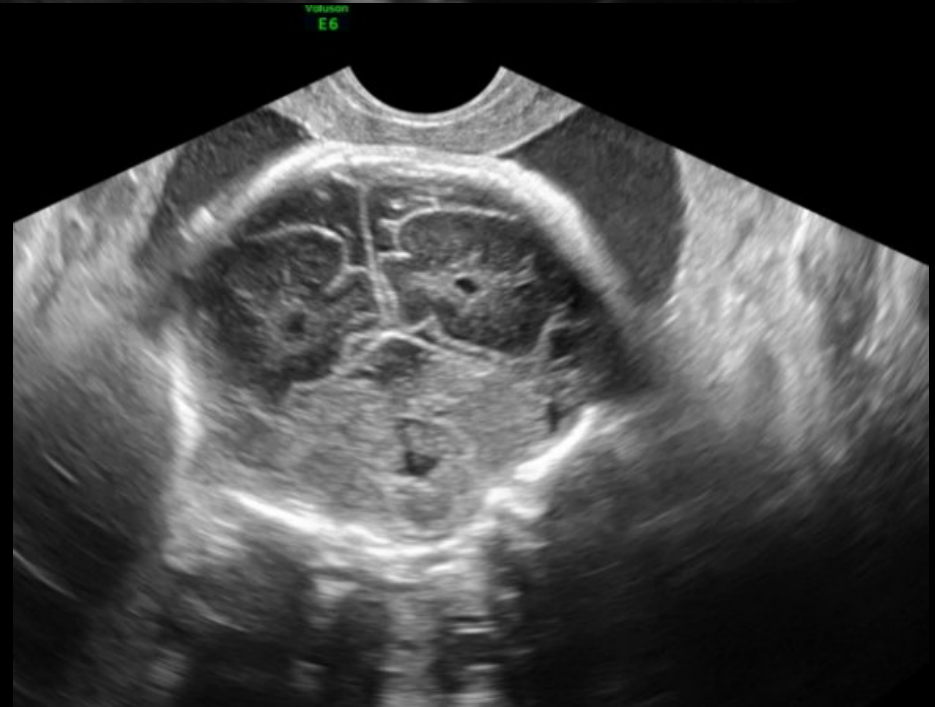
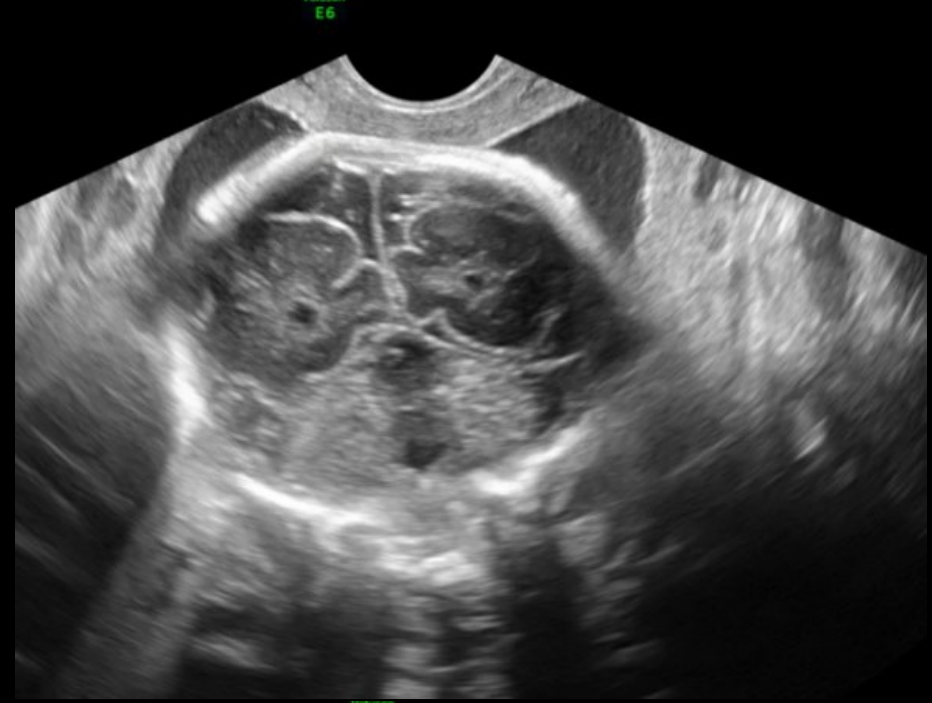
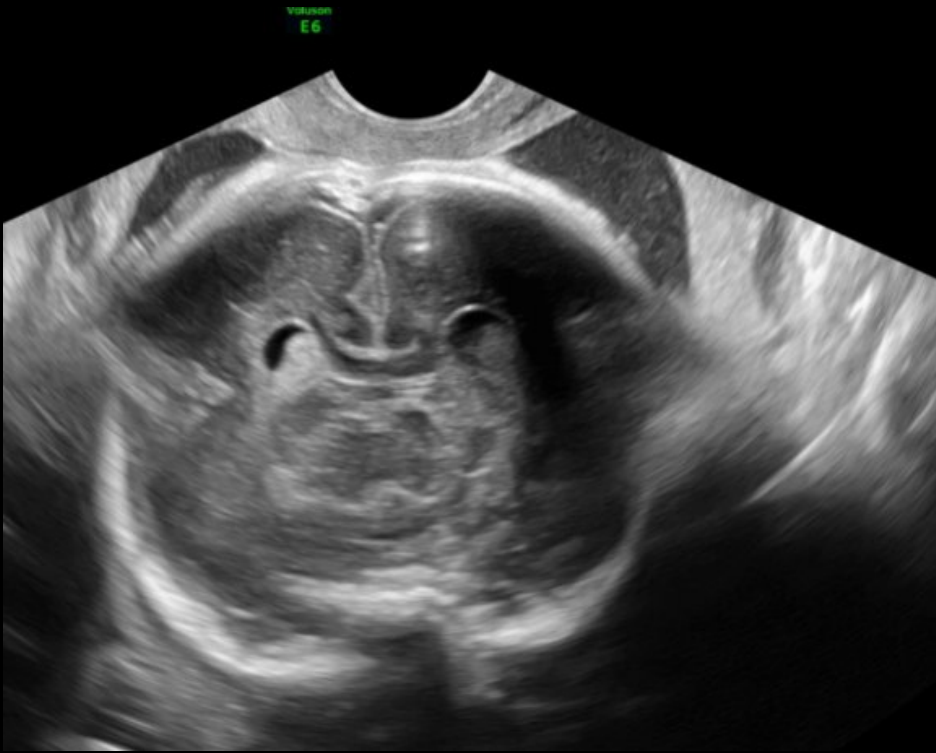


SRI II 3

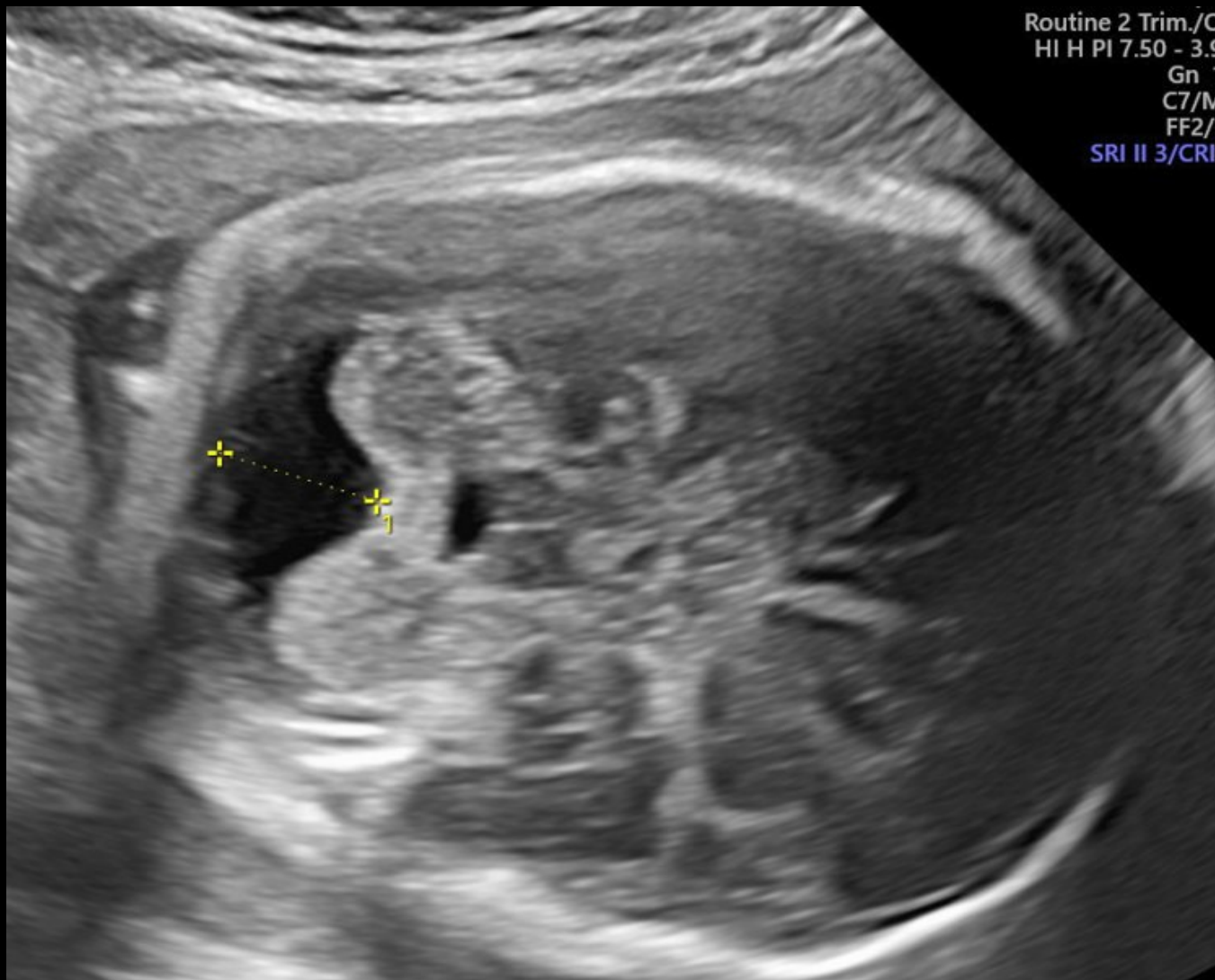
Extended neurosonogram done in all three planes : axial, sagittal and coronal



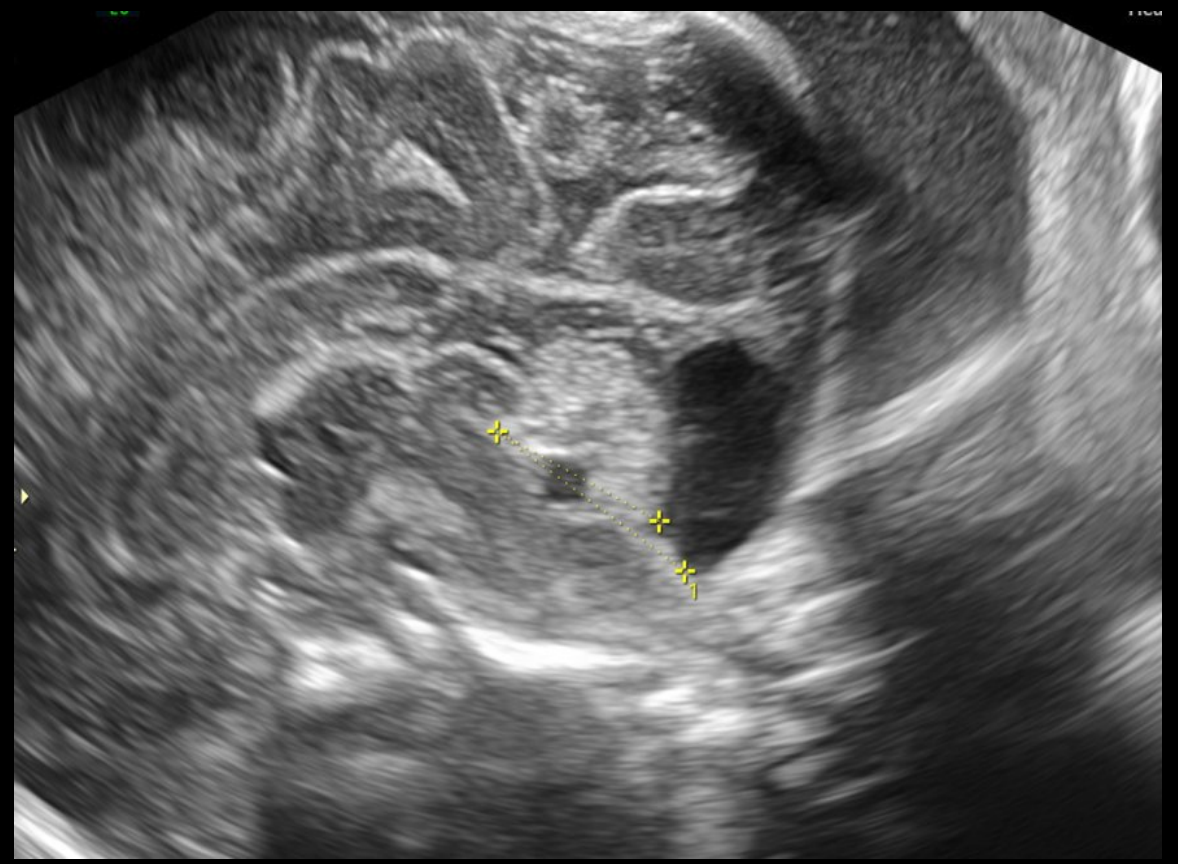
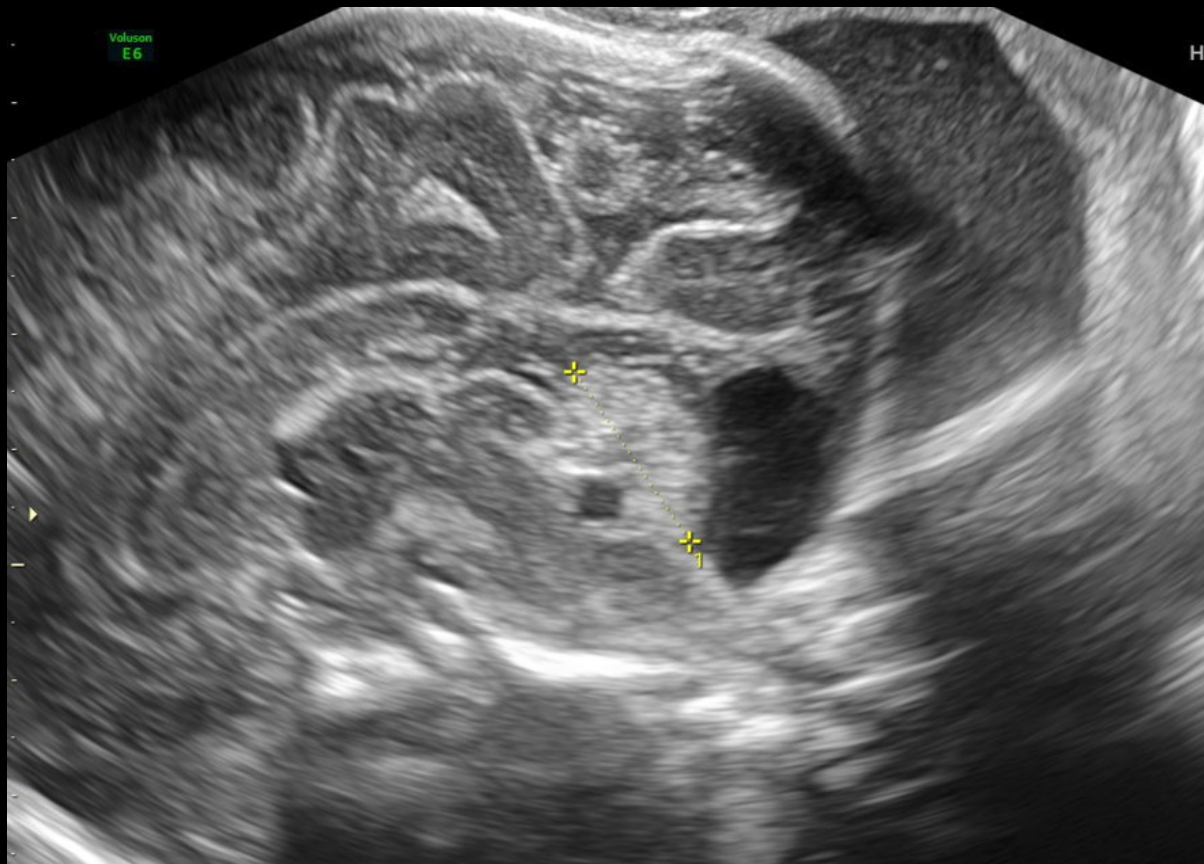
Axial sweep of the fetal brain shows, a cystic structure in the posterior fossa in the retrocerebellar region not communicating with the 4th ventricle. The bilateral cerebellar hemisphere and midline echogenic vermis is visualised.



Coronal sweep from Anterior to posterior shows anterior complex- falx normal, frontal horn no dilatation appears normal, anterior complex appears normal. As we go posteriorly cerebellum, vermis which is nor communicating with the fourth ventricle.



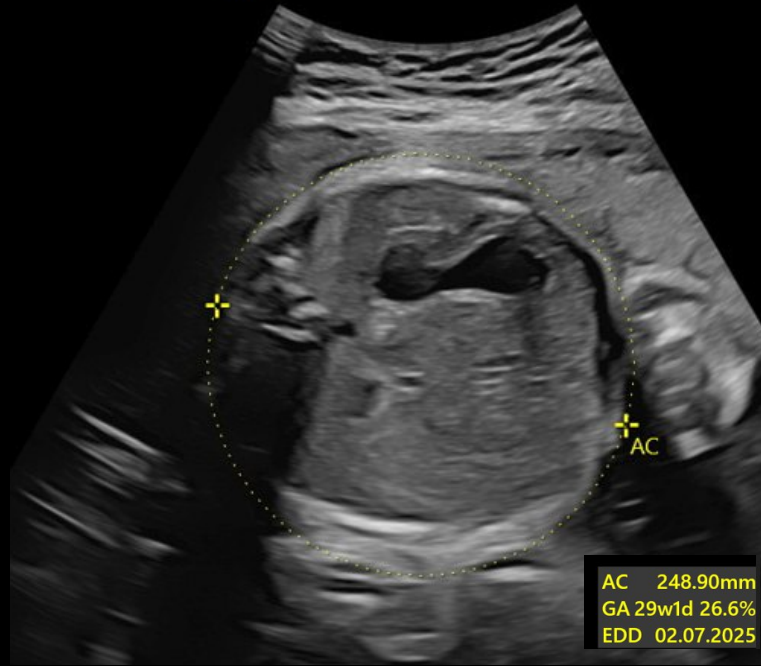
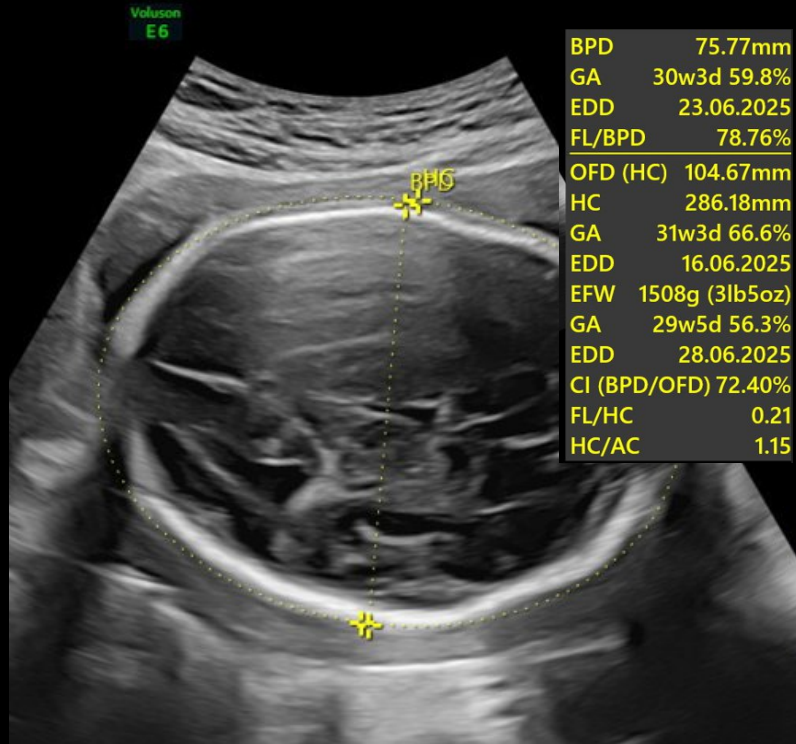
The retro-cerebellar cyst measured 2.4x1.4mm in dimension.



This is the Midsagittal section of fetal brain. Vermis is normal in size, shape and morphology. On comparison to the nomograms of corresponding gestational age, it appears normal. No rotation or superior displacement of the vermis noted. Fourth ventricle is maintaining the normal rhomboid shape. A prominent CSF space is noted in retro and infracerebellar region. Not communicating with fourth ventricle. CC length of Vermis measures 1.8cm and appears normal as per nomograms of corresponding gestational age, which rules out vermian hypoplasia. The tegmento-vermian angle is calculated, which measured 7.7 degrees, which is normal and rules out dandy walkers malformation.

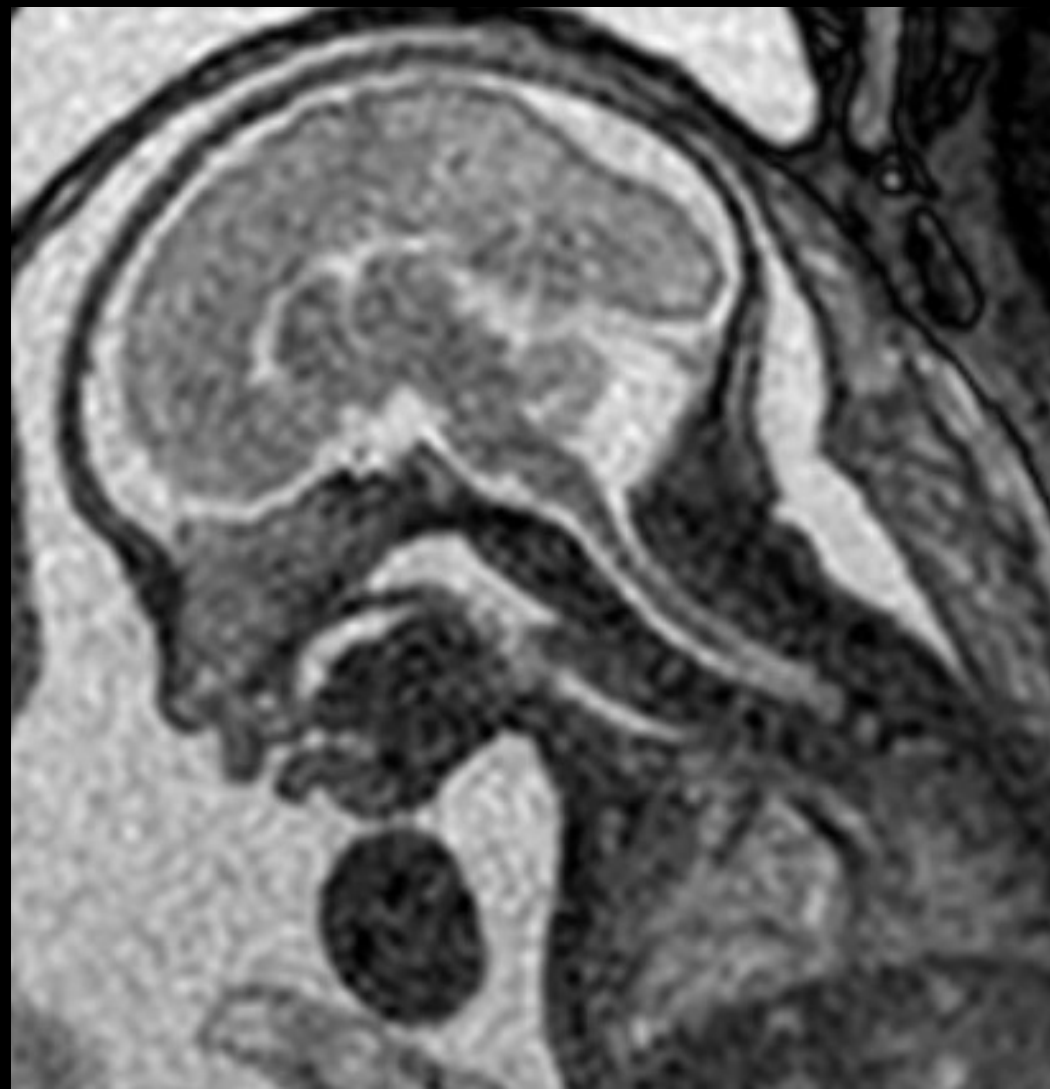
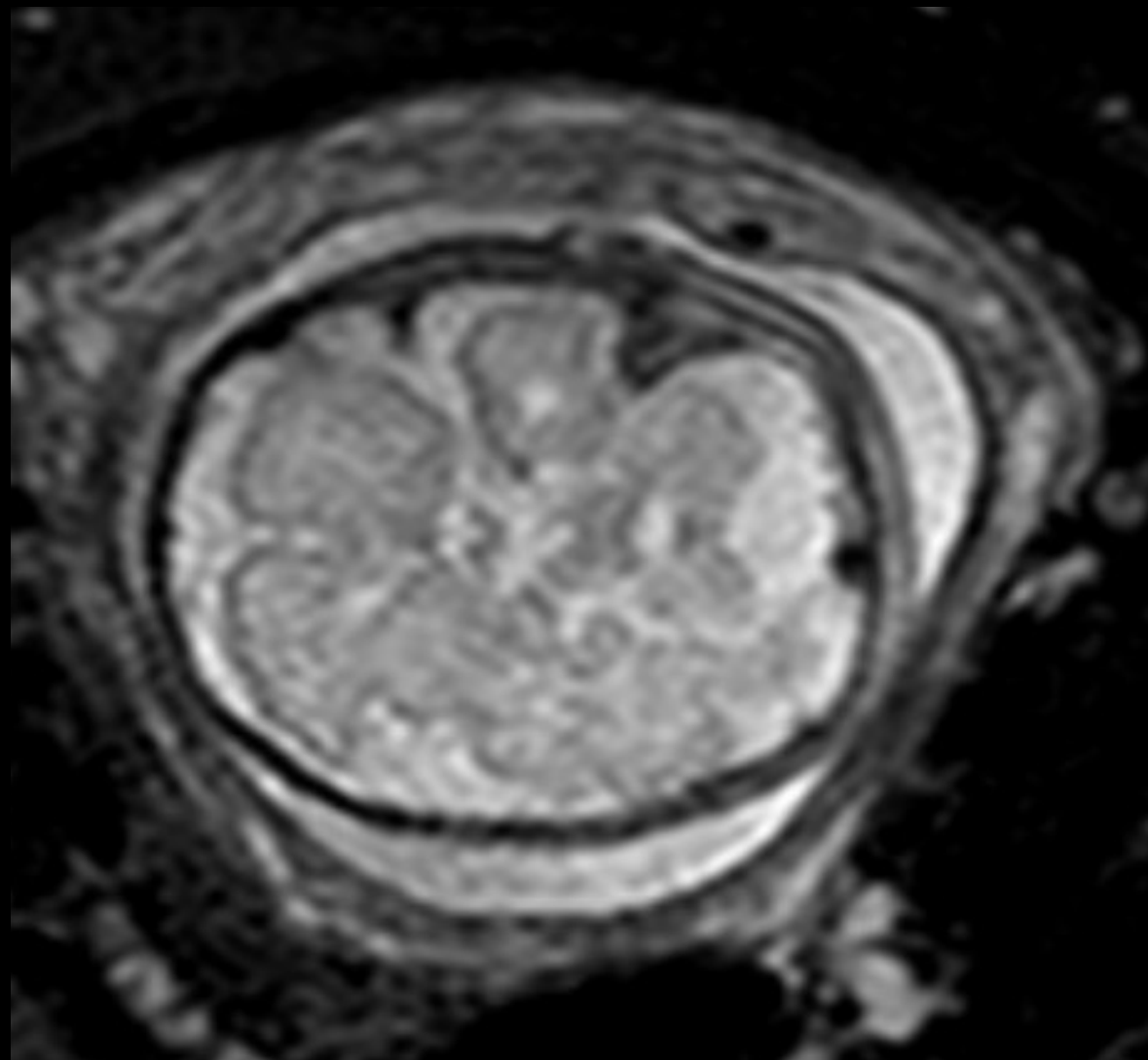


Choroid plexus cyst measuring 5.3x2.8mm noted on the right side.



The atria of lateral ventricle is normal and measures 5mm. There is no hydrocephalus or ventriculomegaly BPD and head circumference are normal for gestational age, rules out macrocephaly, which is associated with dandy walkers malformation.

Rest of the biometry appeared normal and appropriate for gestational age.



Complimentary Fetal MRI shows :

- Increased retrocerebellar space
- No communication between 4th ventricle and retrocerebellar space
- Tentorium cerebelli normal in position

s/o Mega cisterna magna

IMPRESSION:

- A retro-cerebellar cystic lesion not communicating with the 4th ventricle with normal vermis & brainstem-vermian angle.

Features consistent with Mega cisterna magna

- Choroid plexus cyst in right lateral ventricle.

Approach for cyst in the Posterior cranial fossa

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graph TD; A[Approach for cyst in the Posterior cranial fossa] --> B[Mega cisterna magna]; A --> C[Arachnoid cyst]; A --> D[Blake pouch cyst]; A --> E[Inferior vermian hypoplasia]; A --> F[Dandy walker malformation];
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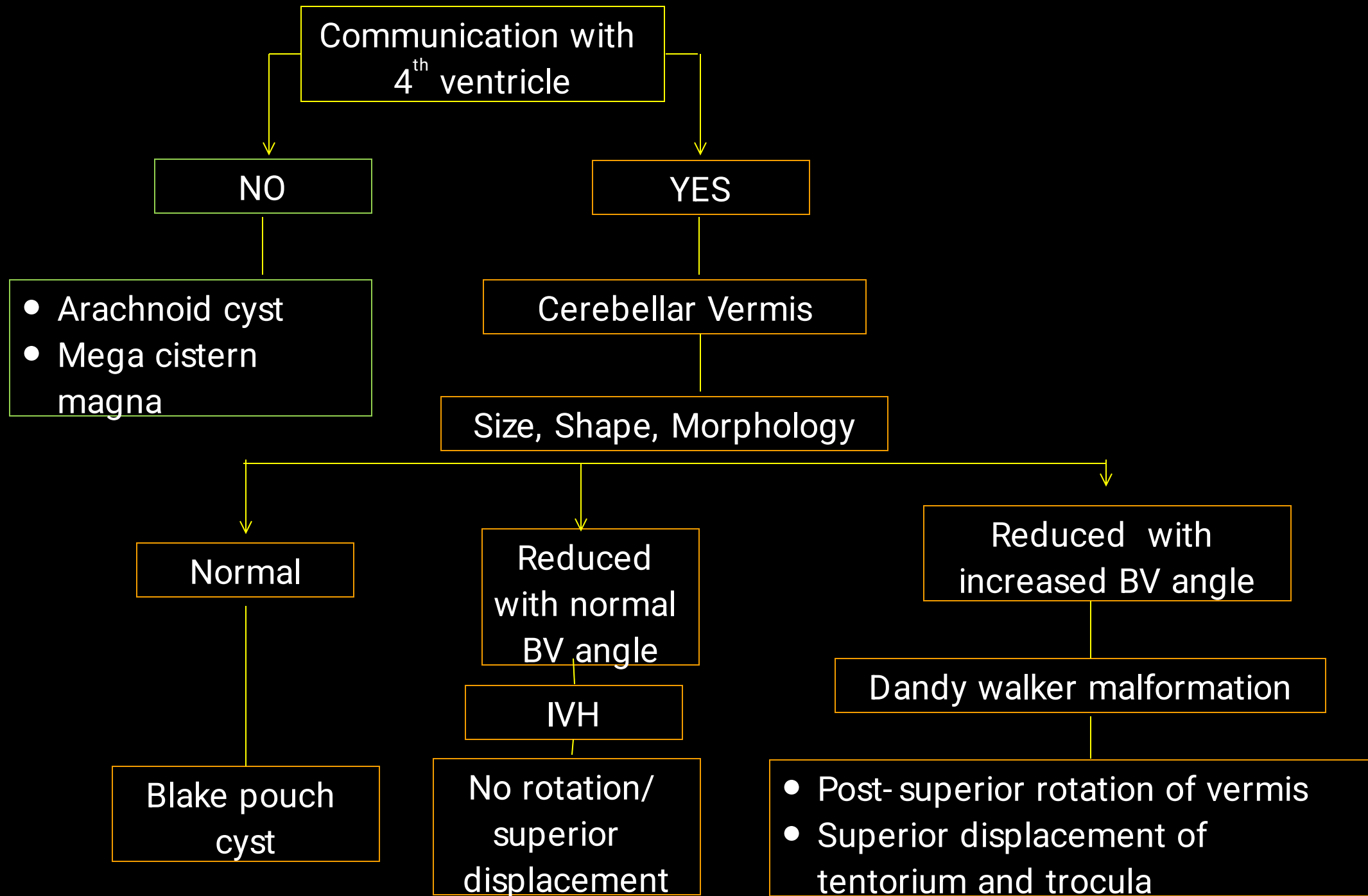
Mega
cisterna
magna

Arachnoid
cyst

Blake
pouch
cyst

Inferior
vermian
hypoplasia

Dandy walker
malformation



THANK YOU