



2025

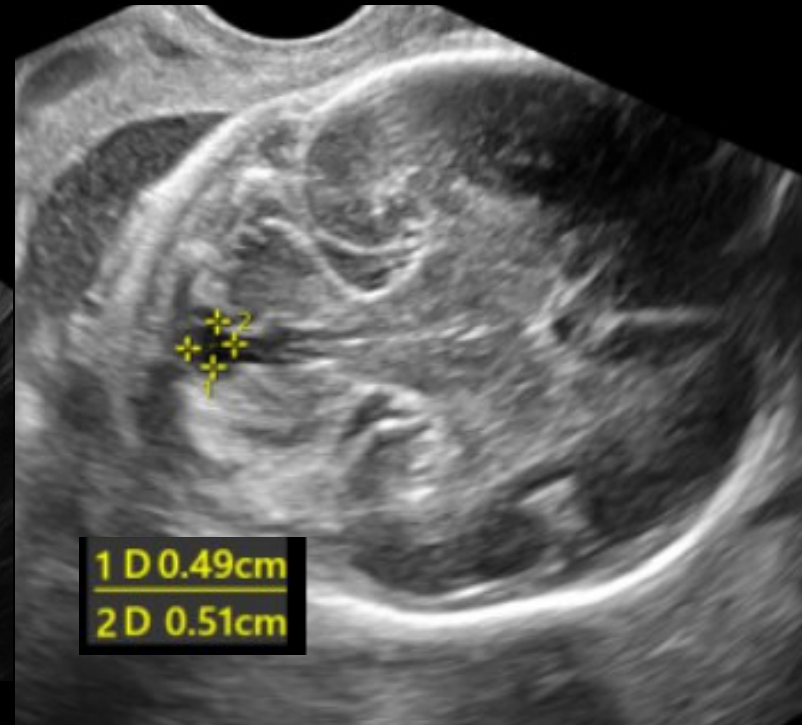
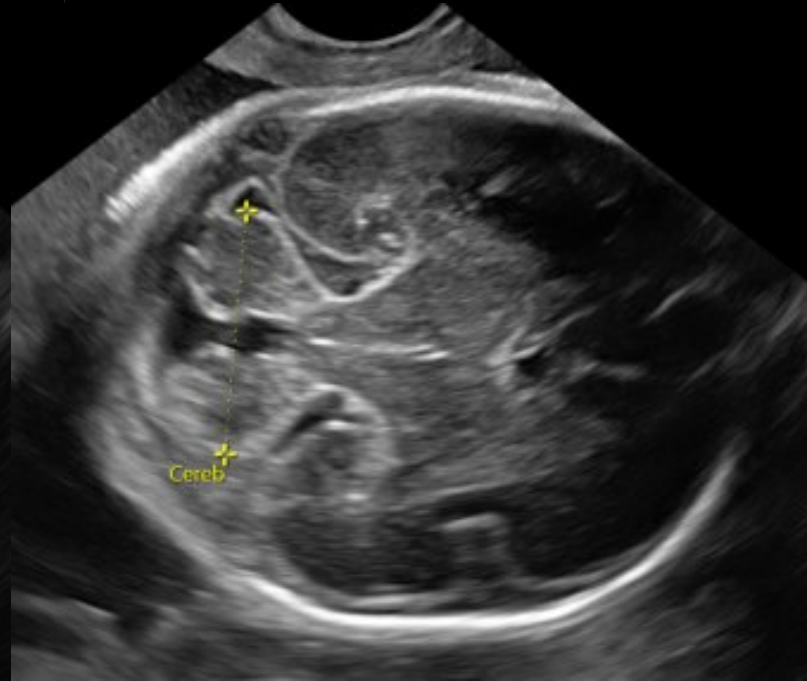
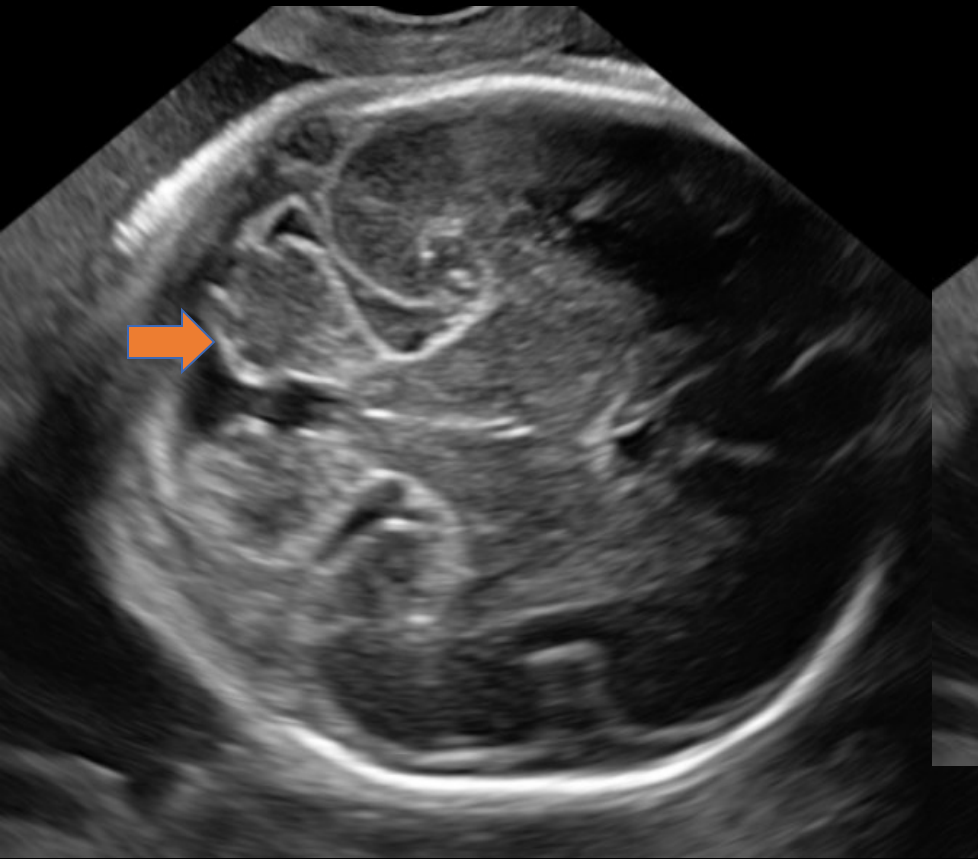
KARNATAKA RADIOLOGY EDUCATION PROGRAM

DEPT. OF RADIO DIAGNOSIS, JMMC,
DAVANGERE

Mentor: Dr. Sowmya J , Assistant professor
PG Resident: Dr. Akarsh

History

- 28 year old primigravida, non consanguineous marriage, married life of 10 years, conceived through IVF method = Precious pregnancy.
- Dating scan showed single intrauterine gestation with gestational age assigned as per date of embryo transfer (5th day embryo is transferred) – 8wks 3days.
- NT scan – done outside center- normal.
- The previous anomaly scan done at outside centre showed, a cystic structure in the posterior fossa of the Fetal brain.
- Patient was referred to our department for 2nd opinion from the radiologist.

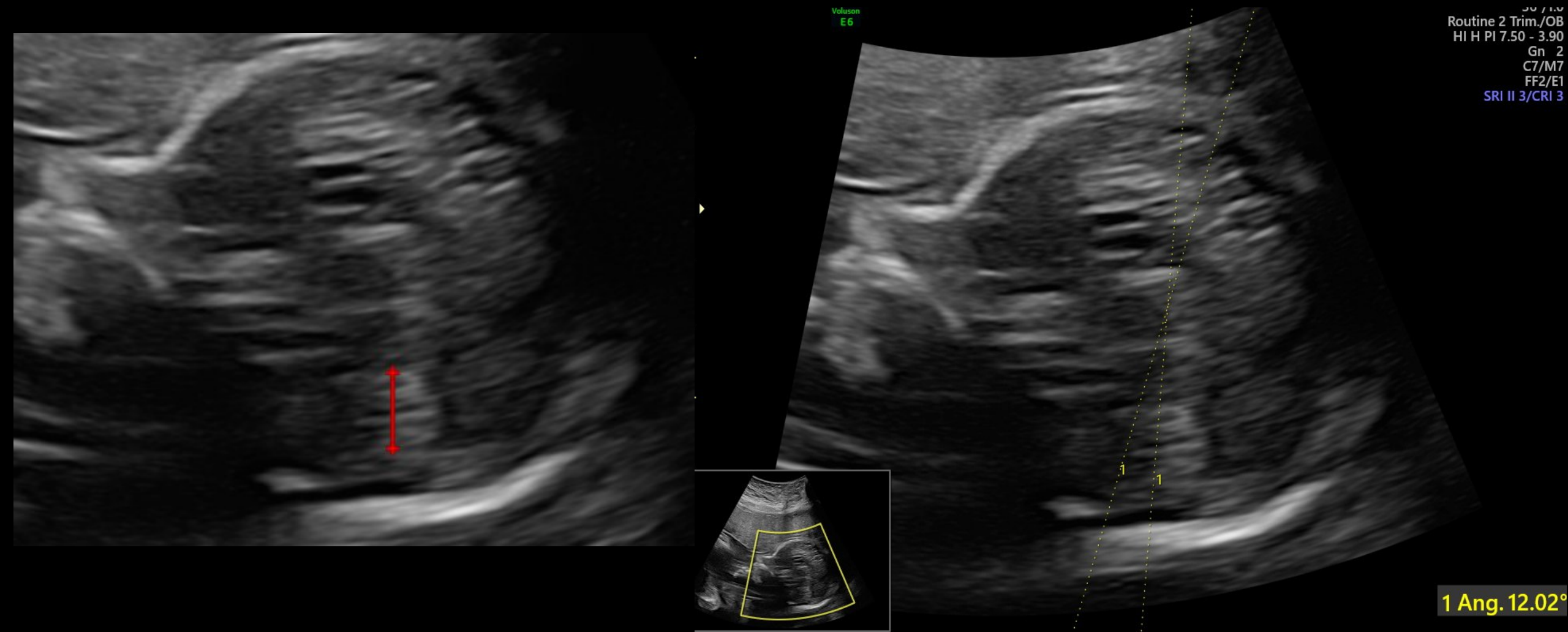


Axial section of posterior fossa , shows a retro cerebellar cystic structure measuring 5x4.9mm, communicating with 4th ventricle and giving key hole appearance. The transcerebellar diameter was measured and appeared normal for the gestational age.

The differentials for Key hole appearance are blake pouch cyst, inferior vermian hypoplasia and dandy walker malformation

The blake pouch cyst has good post natal outcome And rest of 2 have poor perinatal outcome.

To rule out these extended Neurosonogram was performed



In Mid Sagittal section of Fetal brain : Vermis appears normal in size, morphology & location. No evidence of rotation or superior displacement of vermis.

Vermis length measures 1.2cm and on comparison to the nomograms of corresponding gestational age, it appears normal , which rules out vermian hypoplasia.

The tegmento-vermian angle is calculated, which measured 12 degrees, which is normal and rules out dandy walkers malformation. (Normal tegmento-vermian agnle – 0- 18 degrees). Nasal bone appears

Voluson
E6

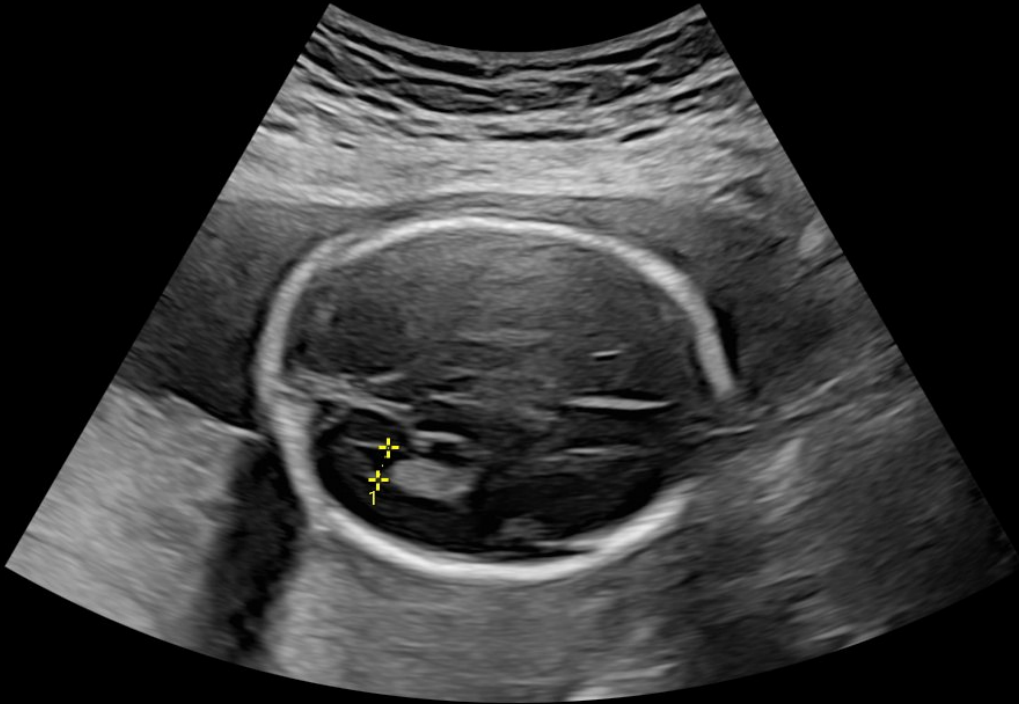
36°/1.0
Routine 2 Trim./OB
HI H PI 7.50 - 3.90
Gn 2
C7/M7
FF2/E1
SRI II 3/CRI 3



1 D1.35cm

Voluson
E6

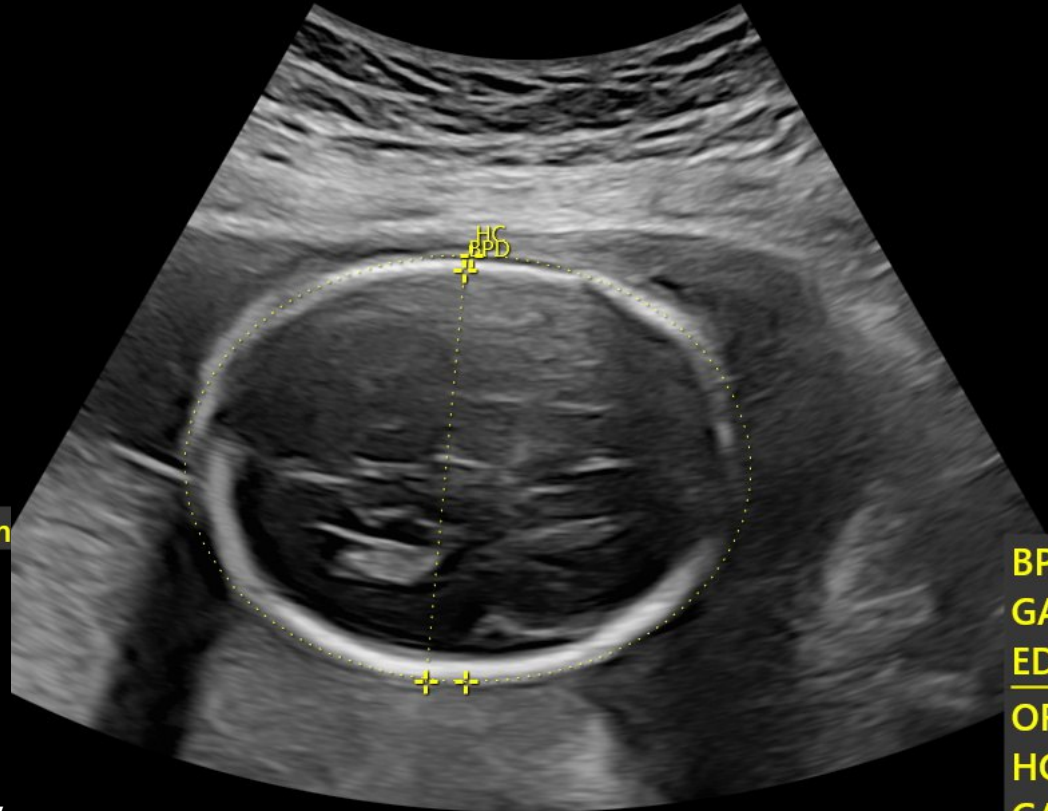
60°/1.1
Routine 2 Trim./OB
HI M PI 5.50 - 4.30
Gn 1
C7/M7
FF2/E2
SRI II 3/CRI 2



1 D 0.51cm

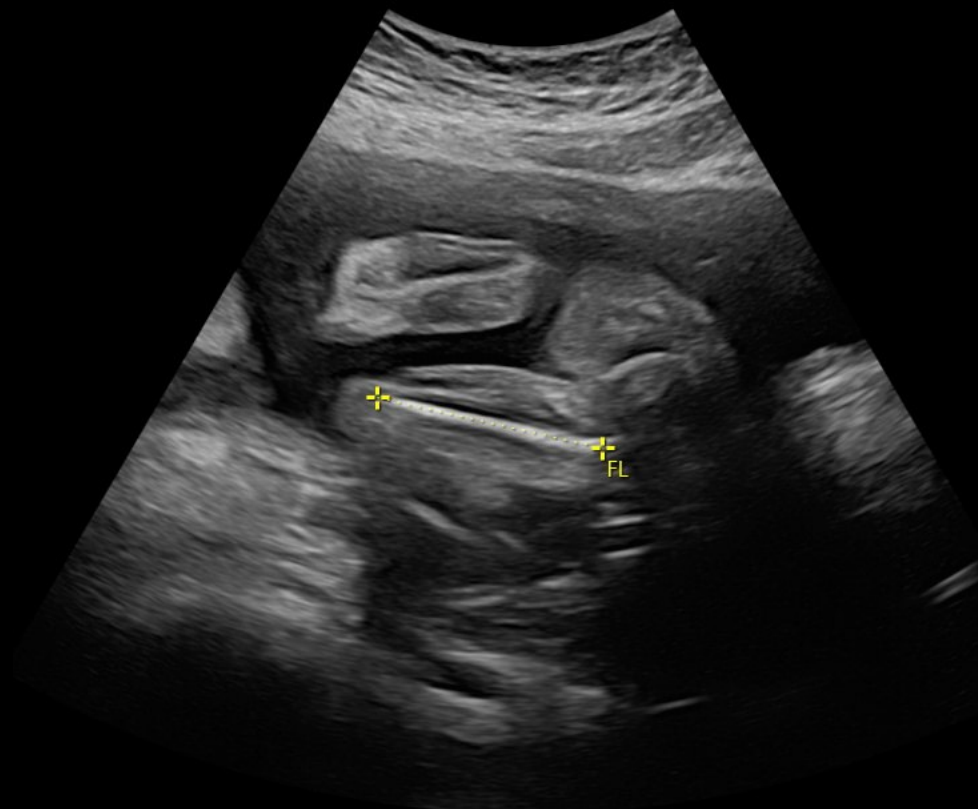
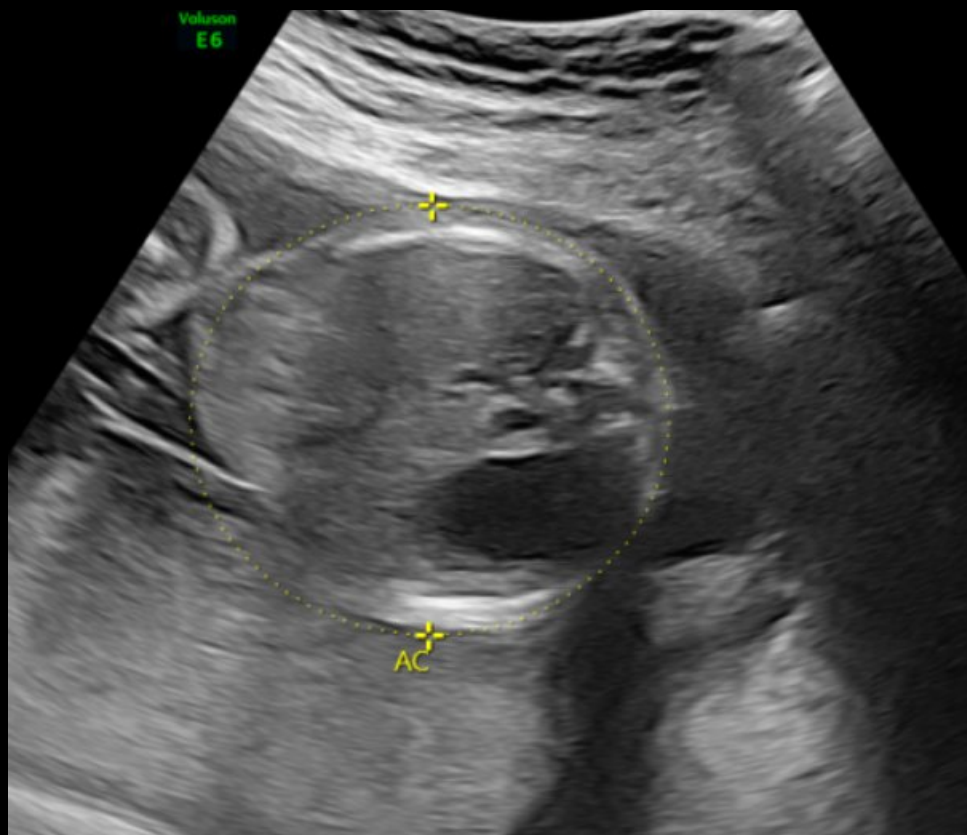
E6

Routine 2 Trim./OB
HI M PI 5.50 - 4.30
Gn 1
C7/M7
FF2/E2
SRI II 3/CRI 2



BPD	5.38cm
GA	22w3d 11.4%
EDD	05.02.2025
OFD (HC)	7.39cm
HC	20.42cm
GA	22w4d 8.5%
EDD	04.02.2025
CI (BPD/OFD)	73%

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



U/M/
FF2/E1
SRI II 3/CRI 3

FL	4.19cm
GA 23w4d	45.0%
EDD	28.01.2025
EFW	561g
GA 22w6d	36.4%
EDD	02.02.2025
FL/AC	23%
FL/BPD	78%
FL/HC	0.21

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

Impression

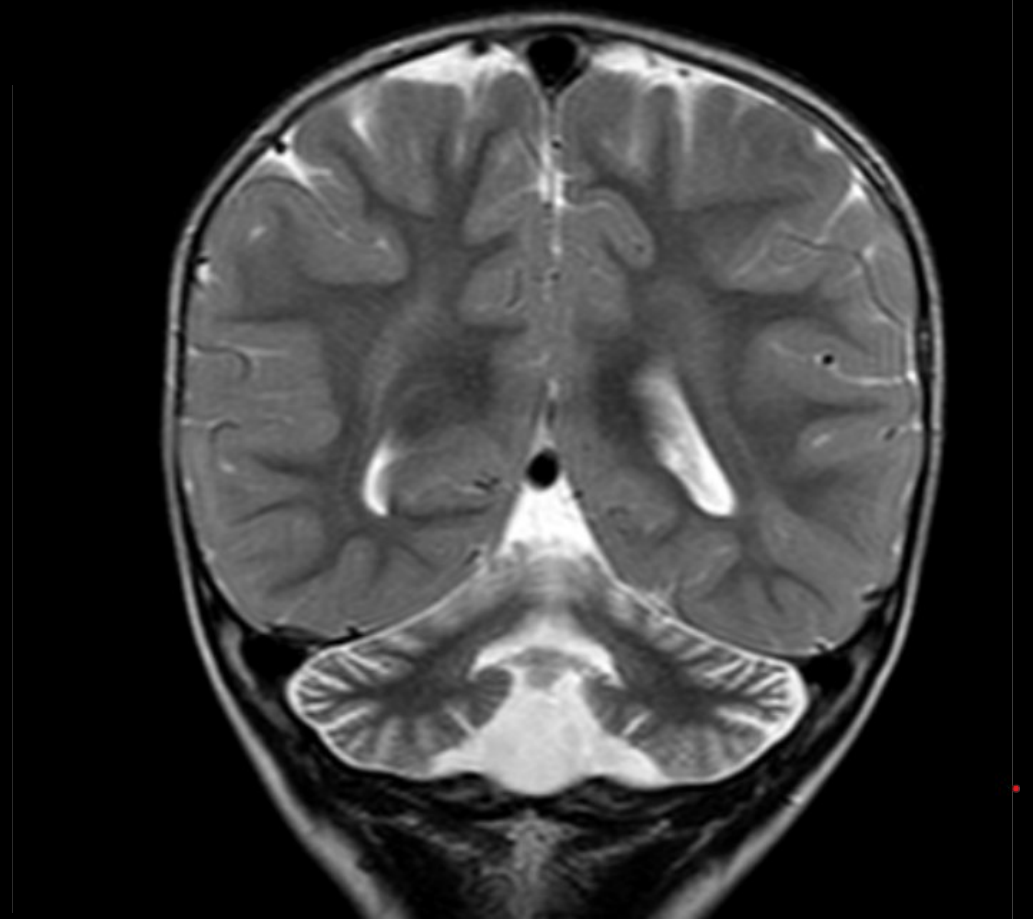
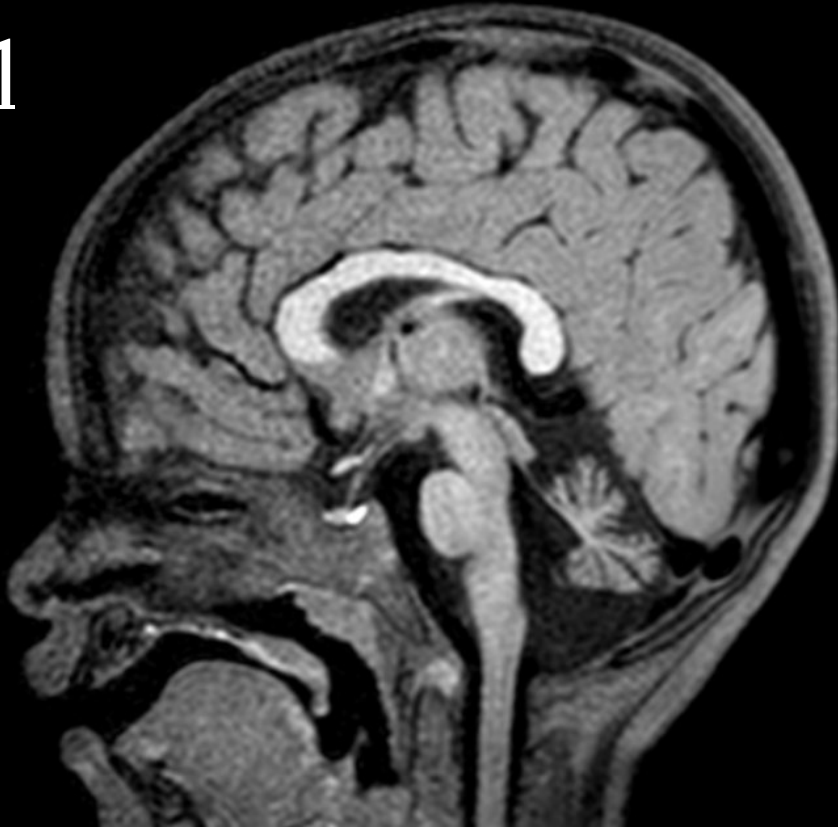
- Anechoic cystic lesion in the retro-cerebellar region, communicating with the 4th ventricle giving key hole appearance with normal bilateral cerebellar hemispheres and vermis

S/o Blake pouch cyst

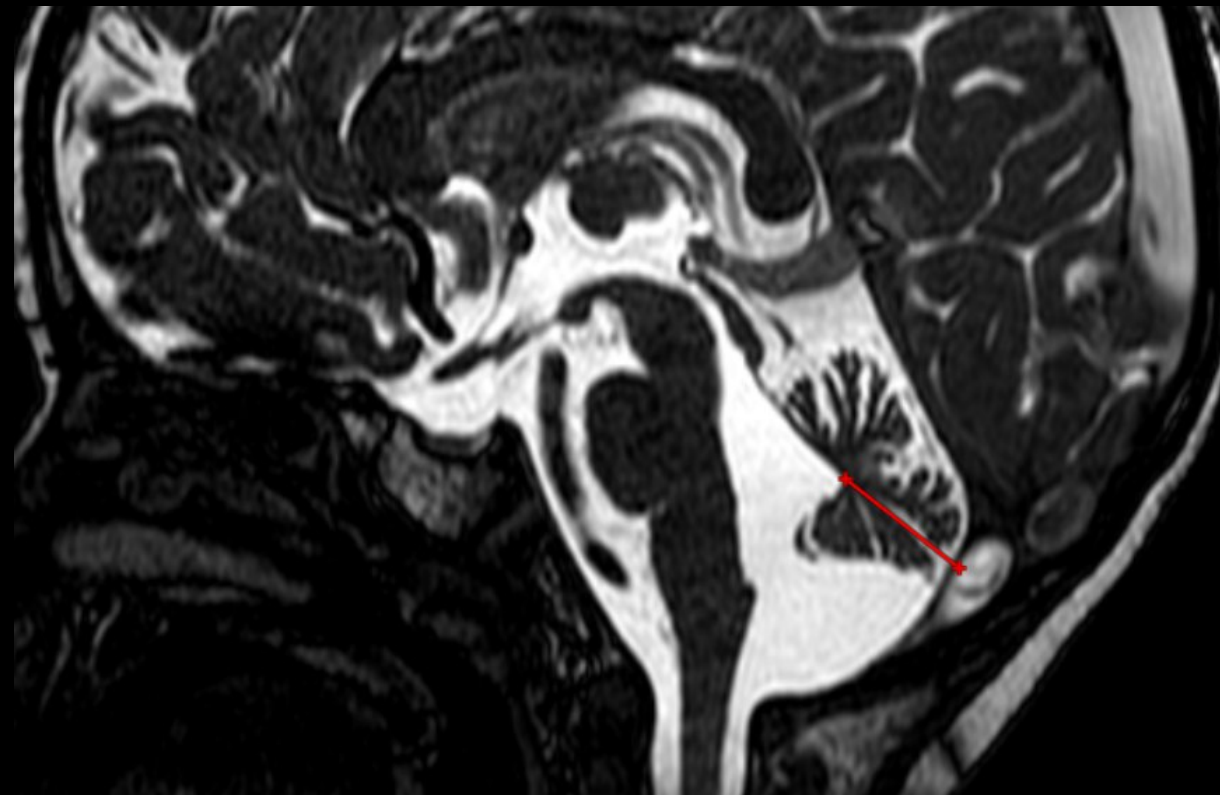
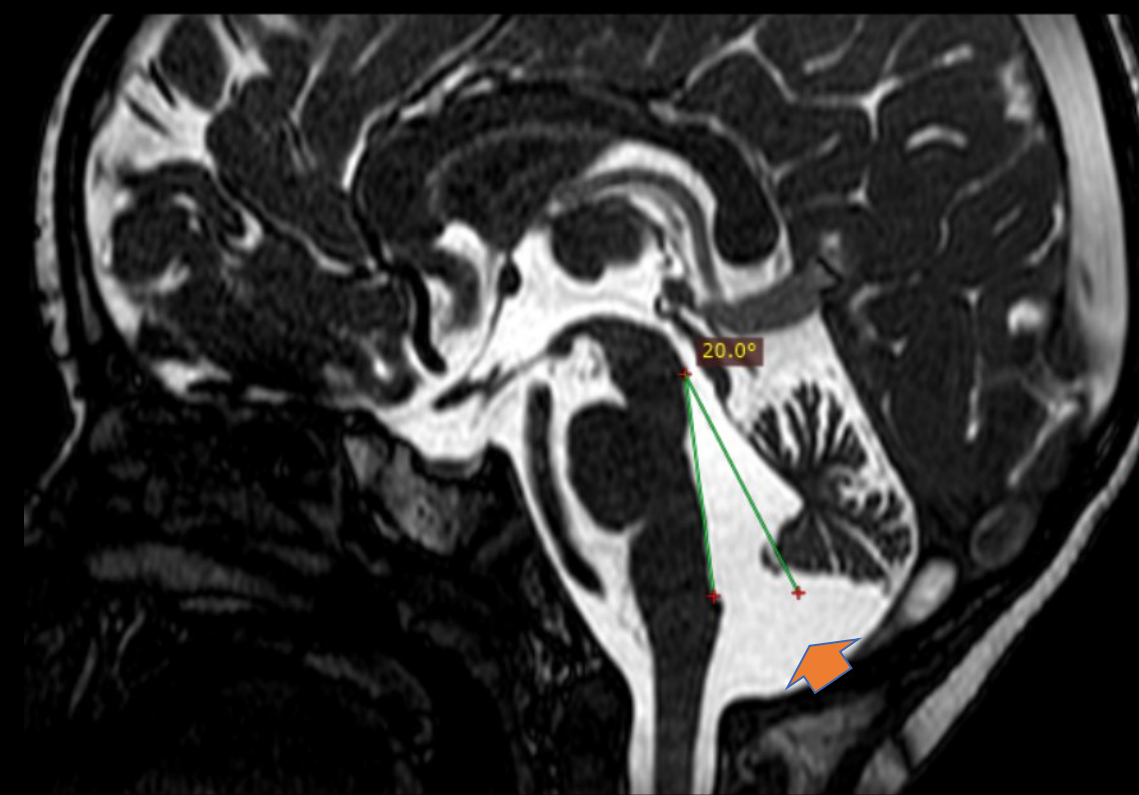
- Since the vermis is normal, no rotation/superior displacement of vermis –Inferior vermian hypoplasia & Dandy walker continuum is ruled out.

Companion cases

case 1

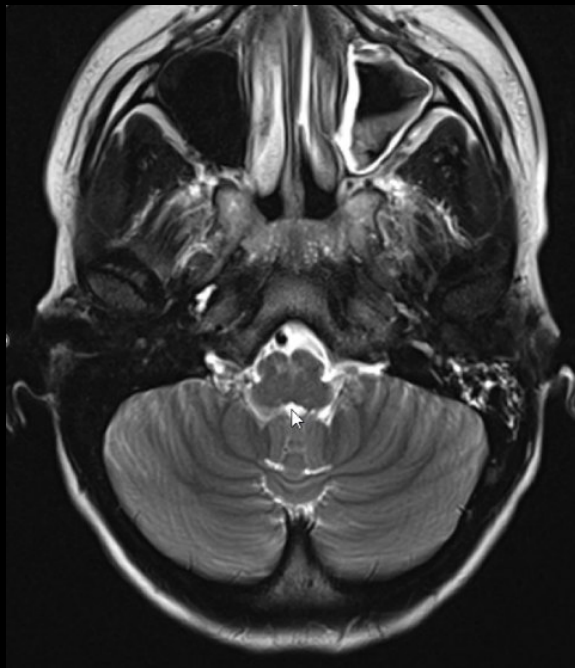


These are the companion cases from our department
There is cystic structure in the posterior fossa. The vermis appeared relatively small
Corpus callosum and other midline structures are normal
T2 coronal section shows cystic structure in the retrocerebellar region.



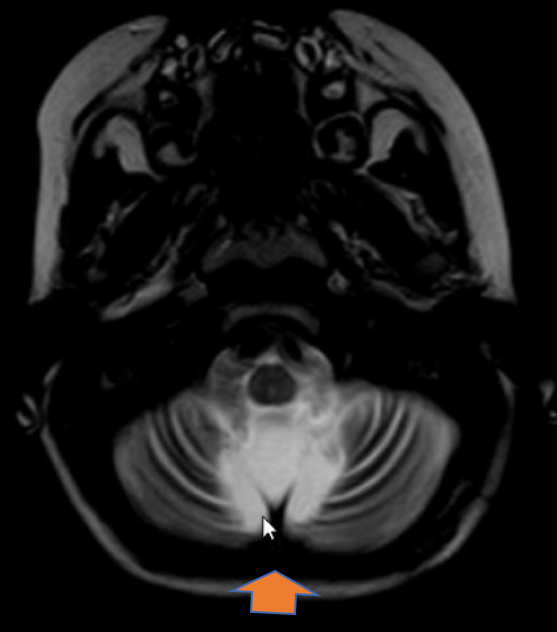
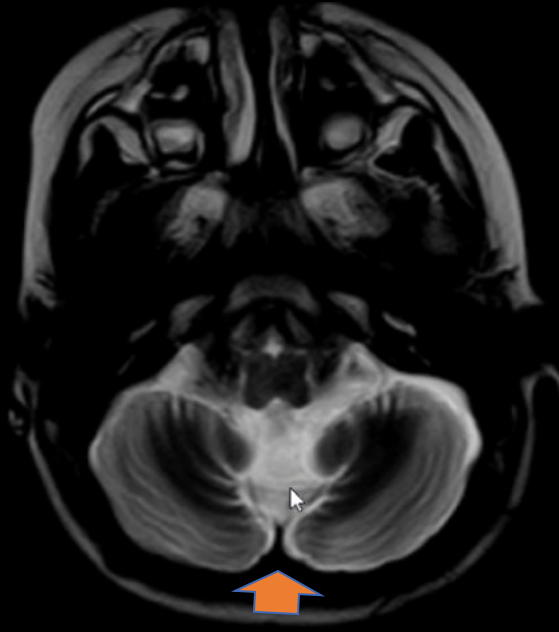
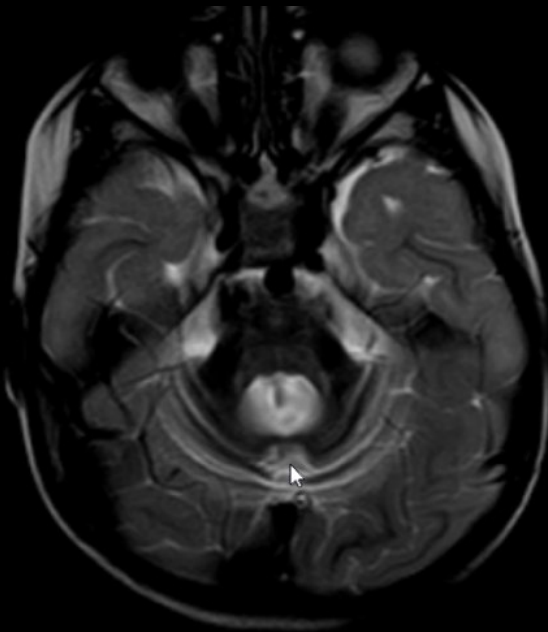
The tegmento vermian angle measures 20 degree , normal value is 0 to 18 degree

The fastigio declive is drawn and less than 50 percent of the vermis lies below this line – s/o inferior vermian hypoplasia.



Normal

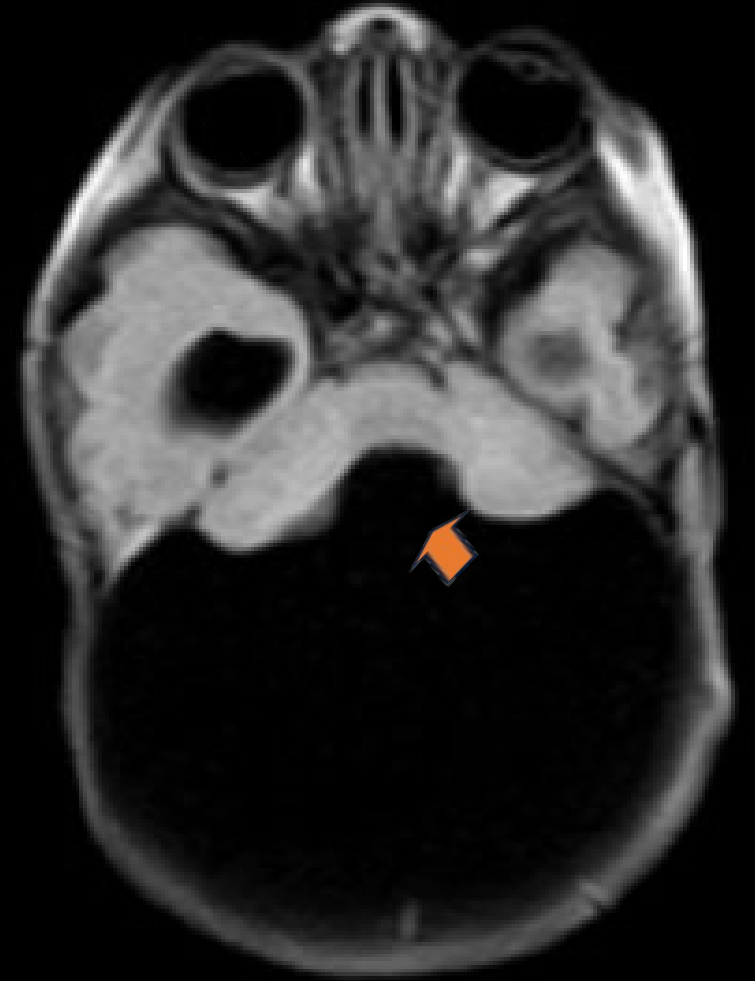
Normal brain showing the relationship of the 4th ventricle, cerebellar hemispheres and the vermis. Normally at the level of medulla, posterior to the 4th ventricle, inferior vermis will be present.



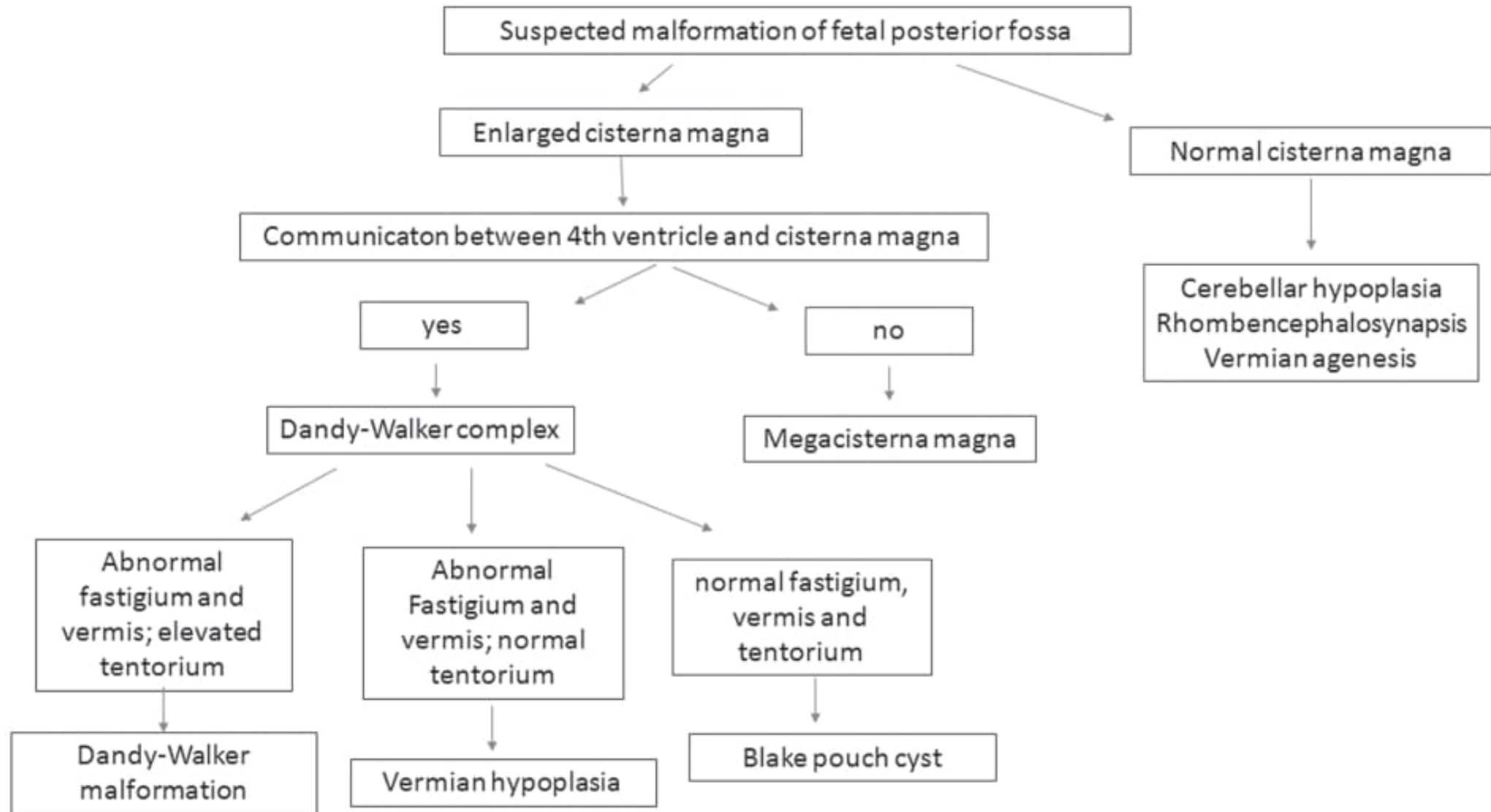
In our case

There is absence of inferior vermis at the level of medulla and the 4th ventricle is communicating with the cisternal space giving key hole apperaence.

Companion Case 2



Sagittal T1 and axial T2/FLAIR images, there is a large posterior fossa cyst with vermian aplasia and torcular-lambda inversion (the torcula lying above the level of lambda suture due to abnormally high tentorium) – s/o dandy walkers malformation with obstructive hydrocephalus



THANK YOU