# MSS Case Presentation

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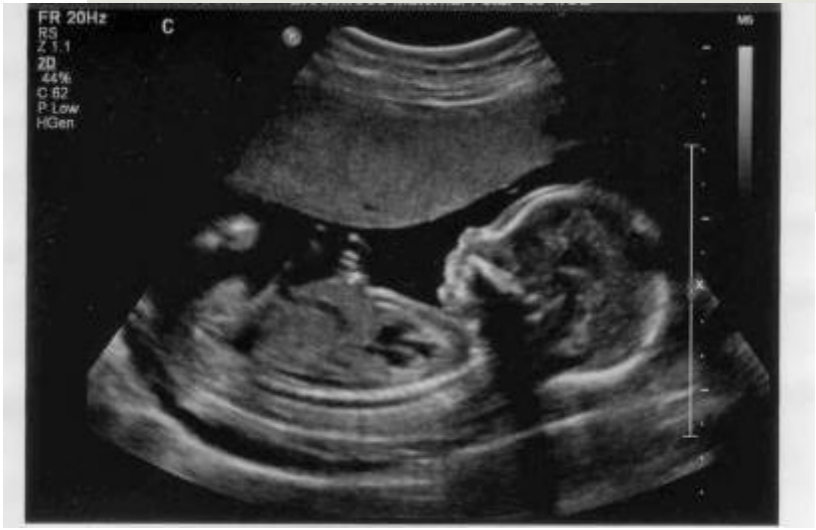



# Patient History

33 yr. old

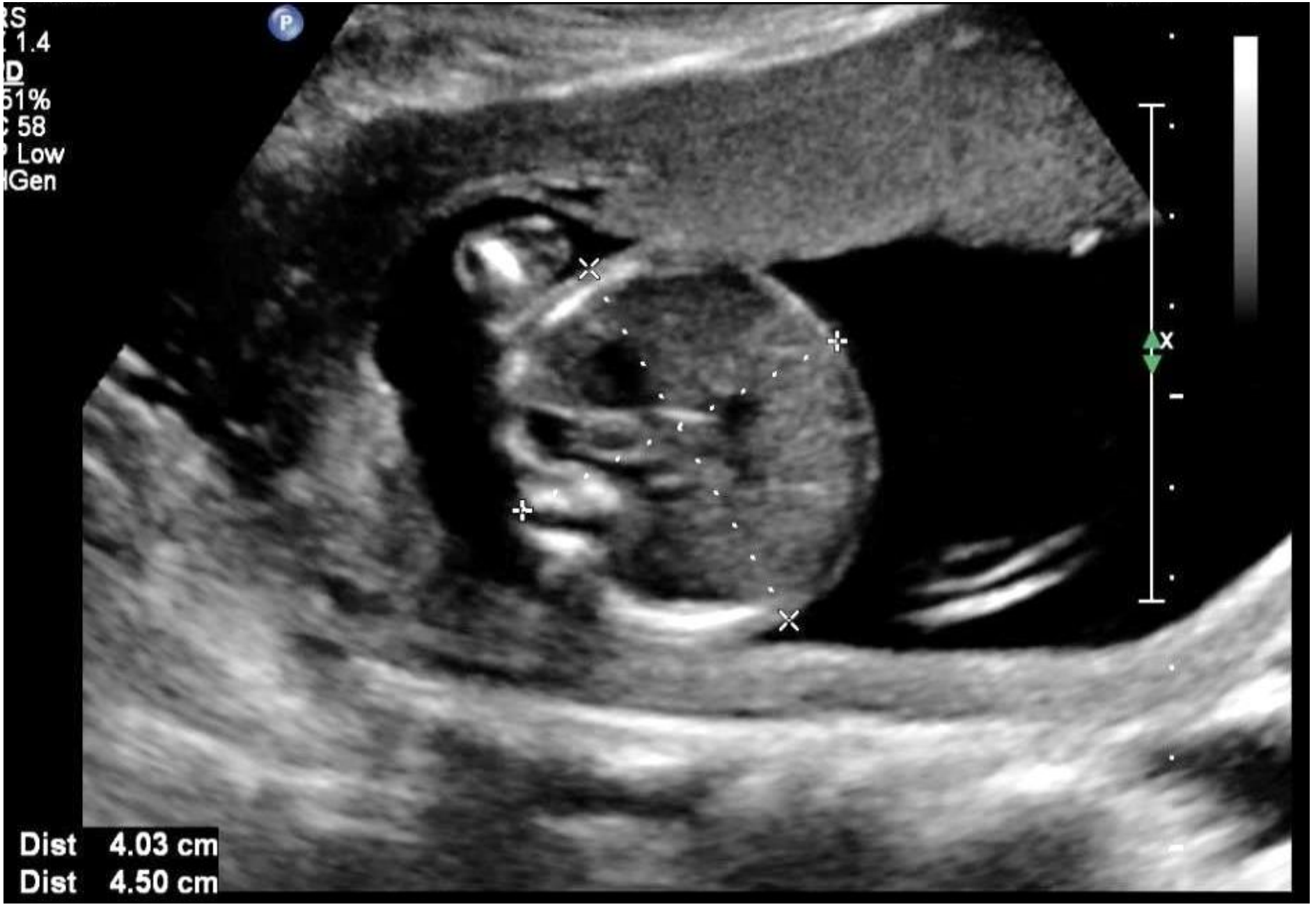
G3 P2 A0

Patient came in for 18-20 week anatomy scan

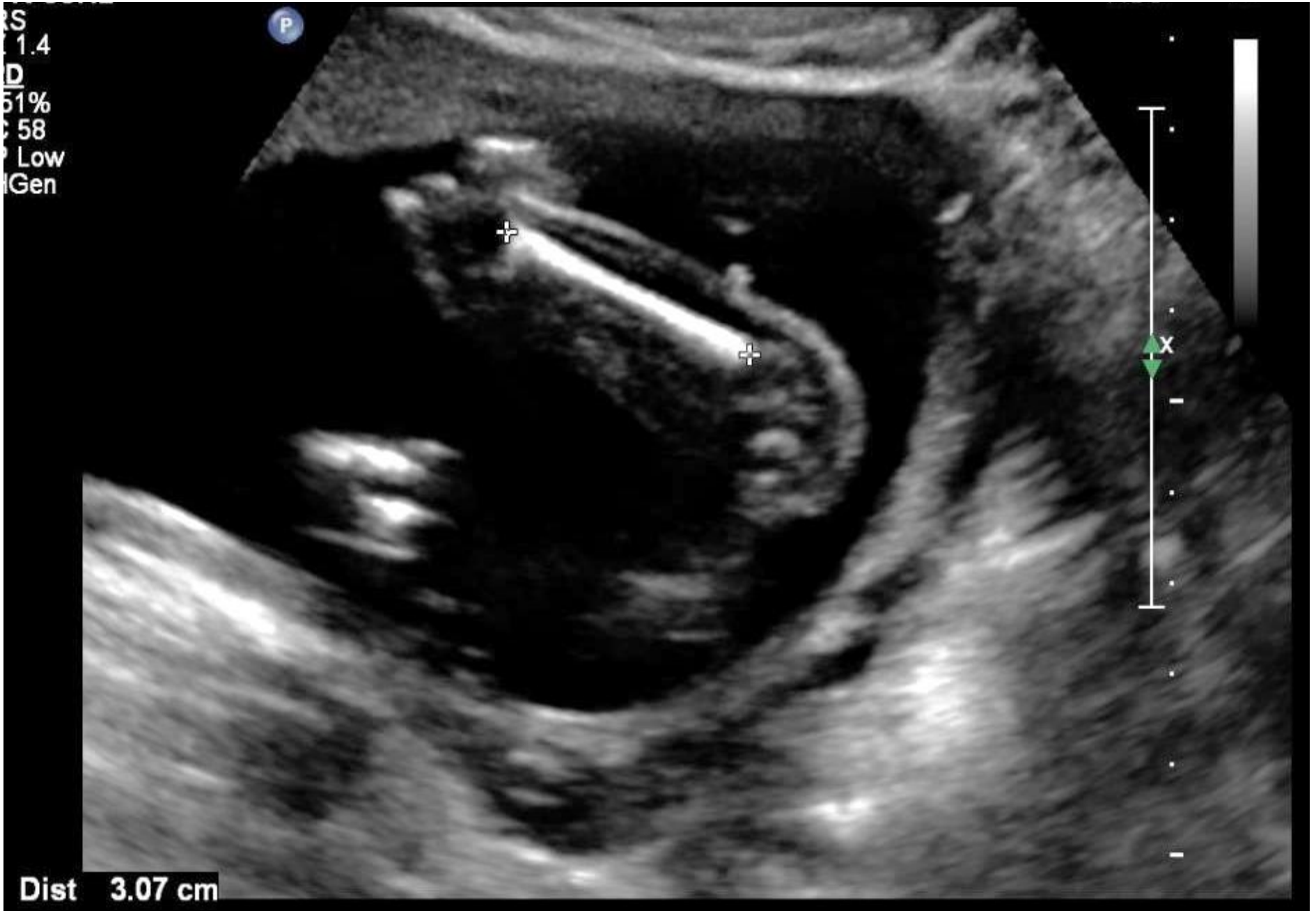
19 1/7 weeks from EDD determined by Physician s Office

19 5/7 weeks from MFM ultrasound

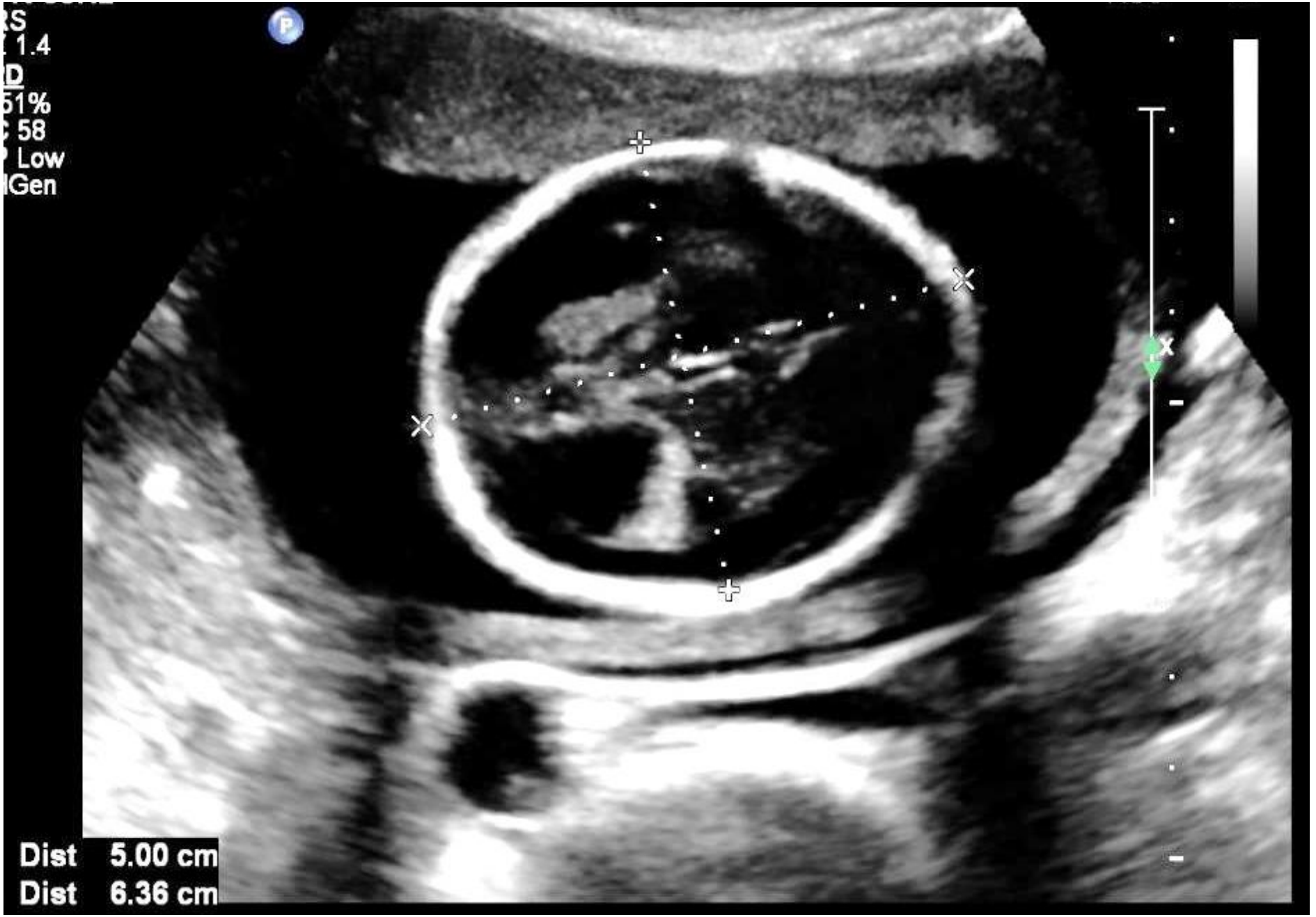
First visit with this pregnancy at MFM



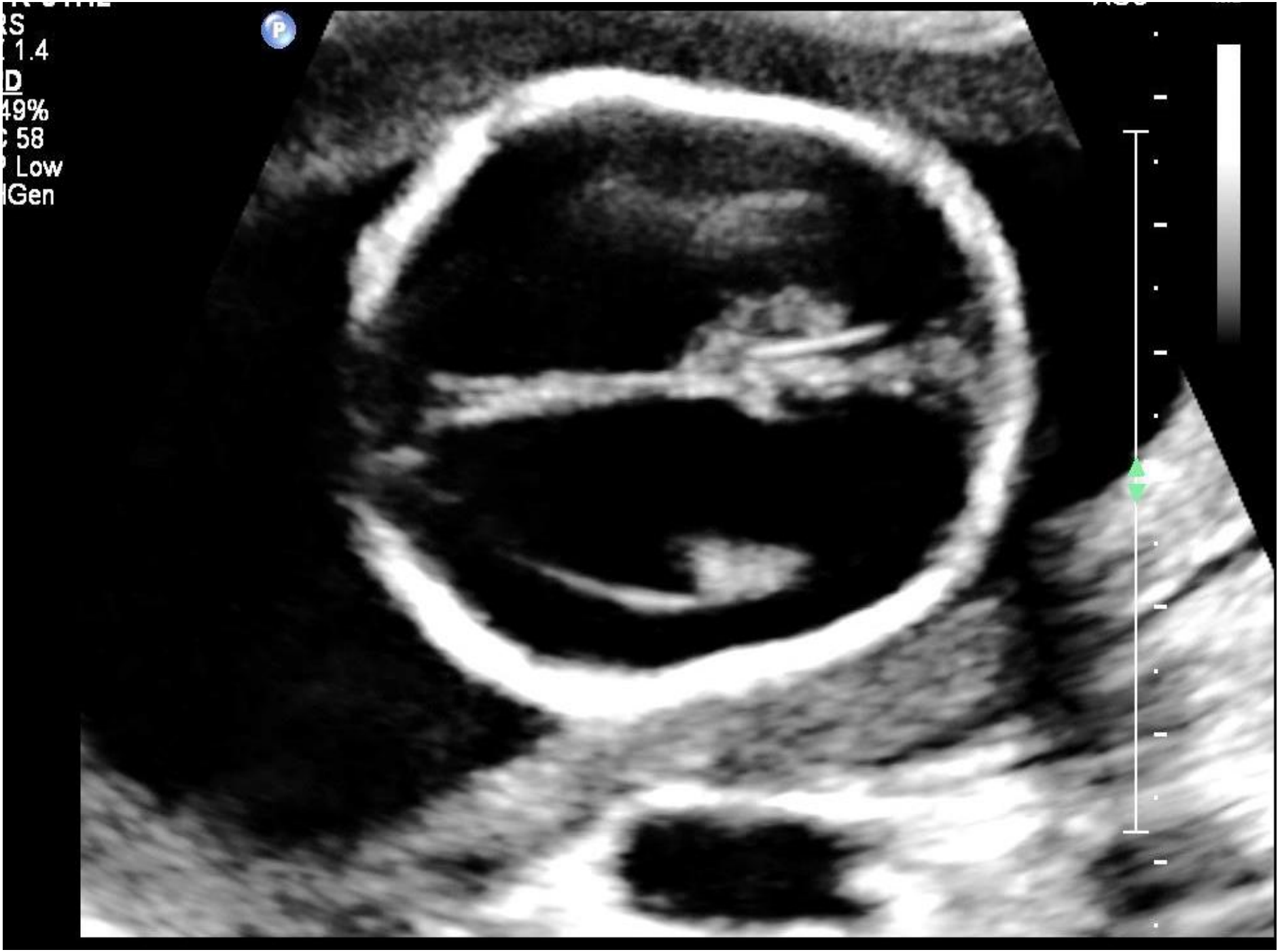

AC measures 18wk6d (31%)

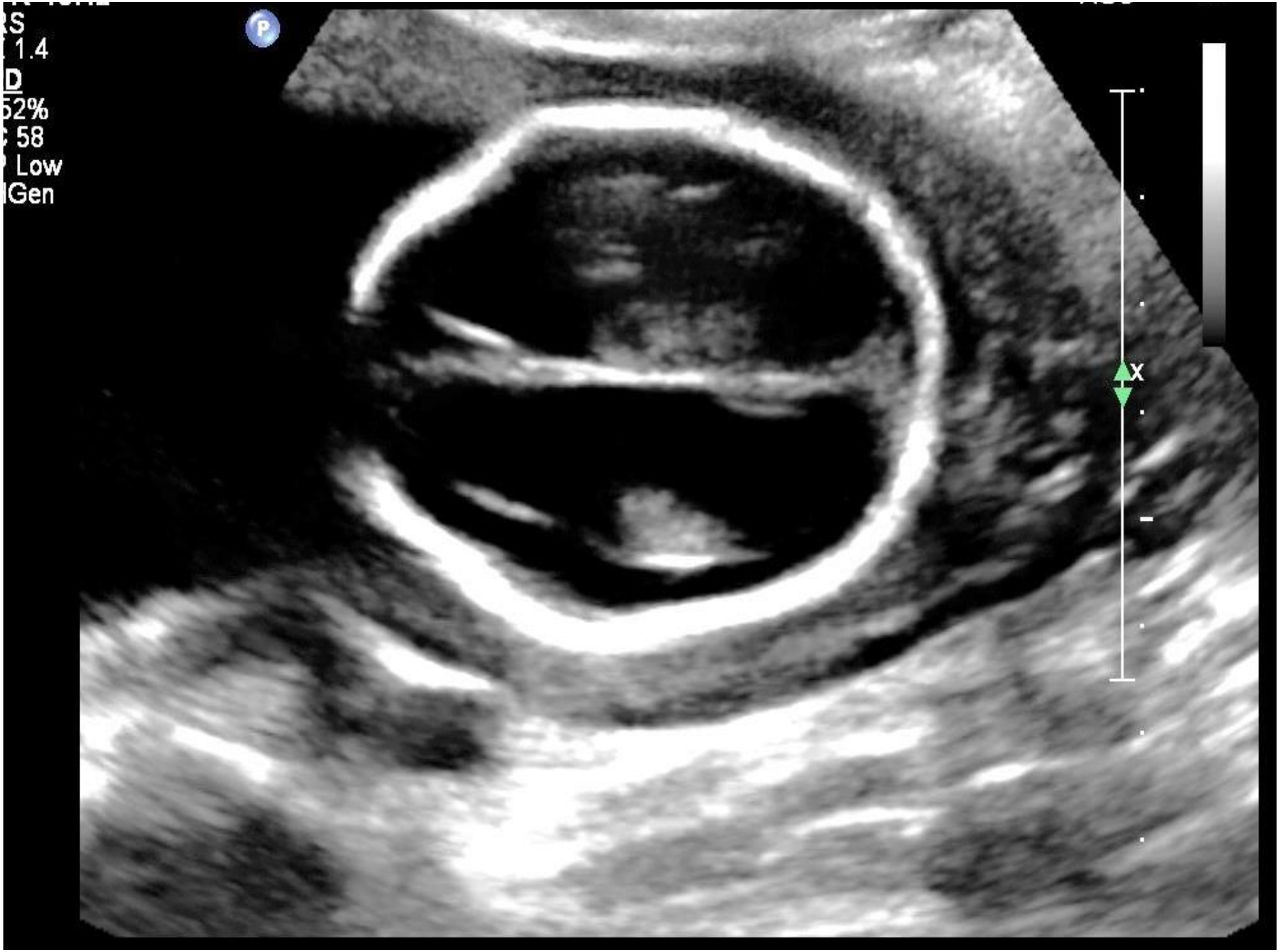


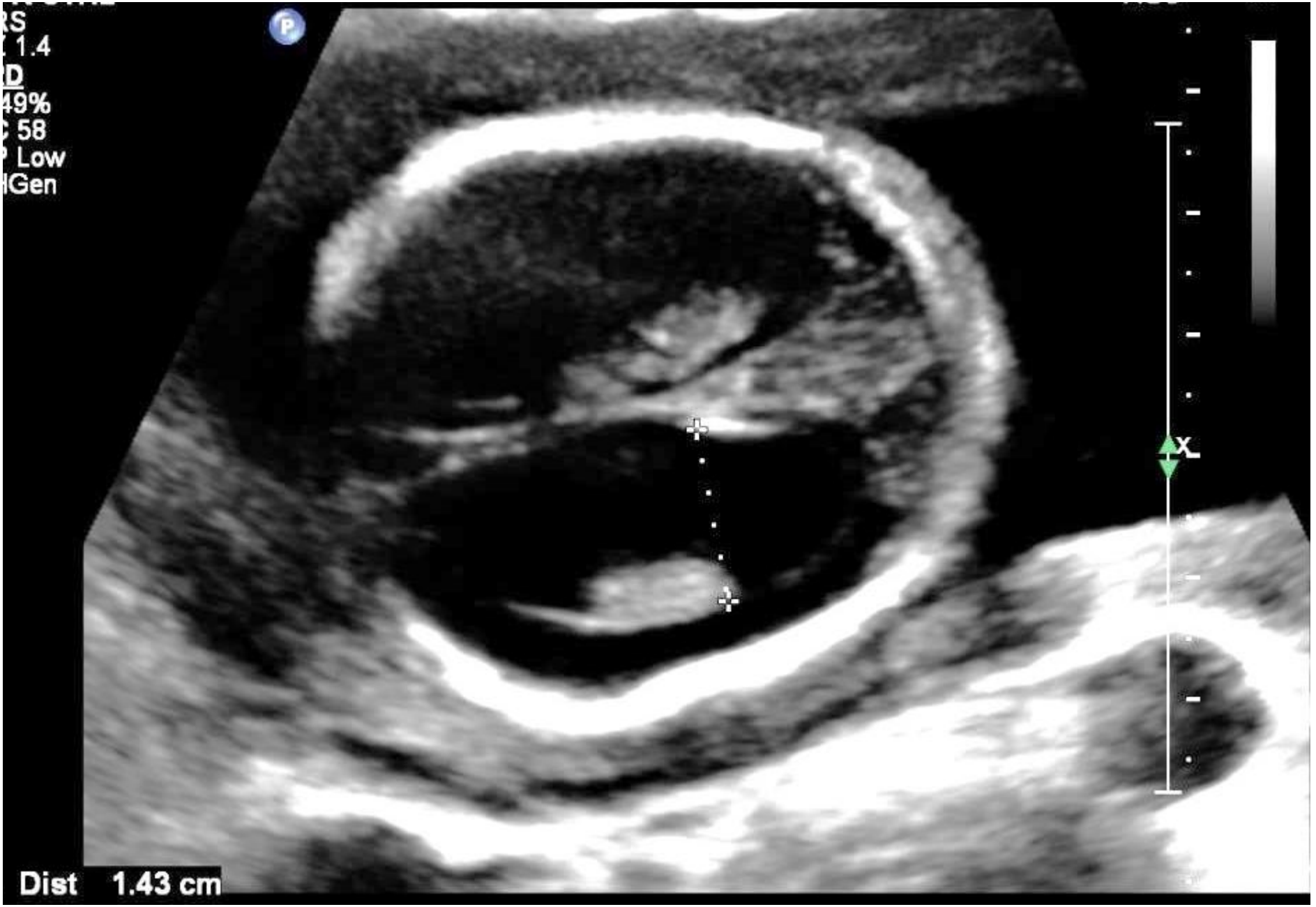

FL measures 19wk4d (58%)



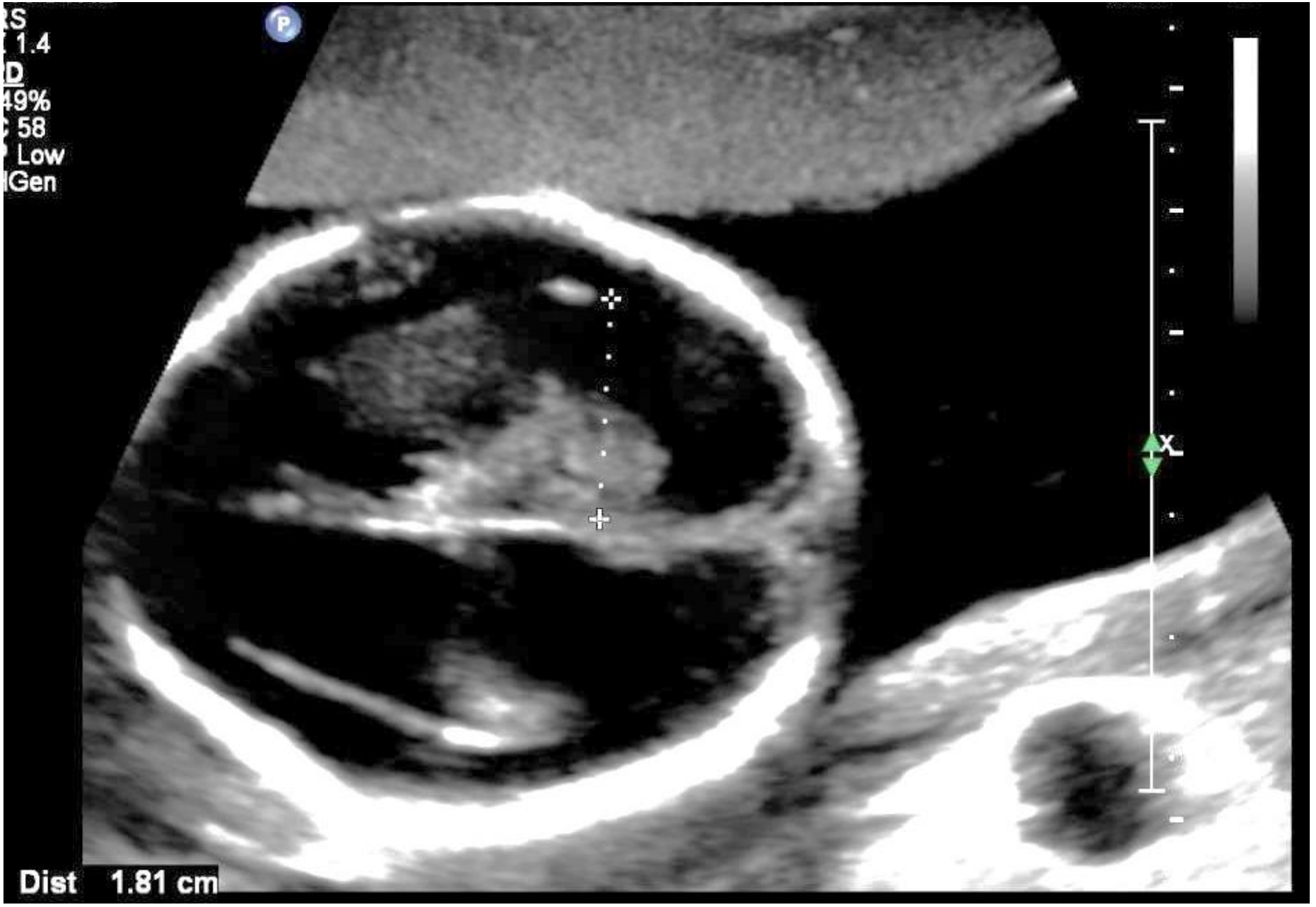

BPD measures 21wk1d (>97%)


S
1.4
D
49%
58
Low
Gen

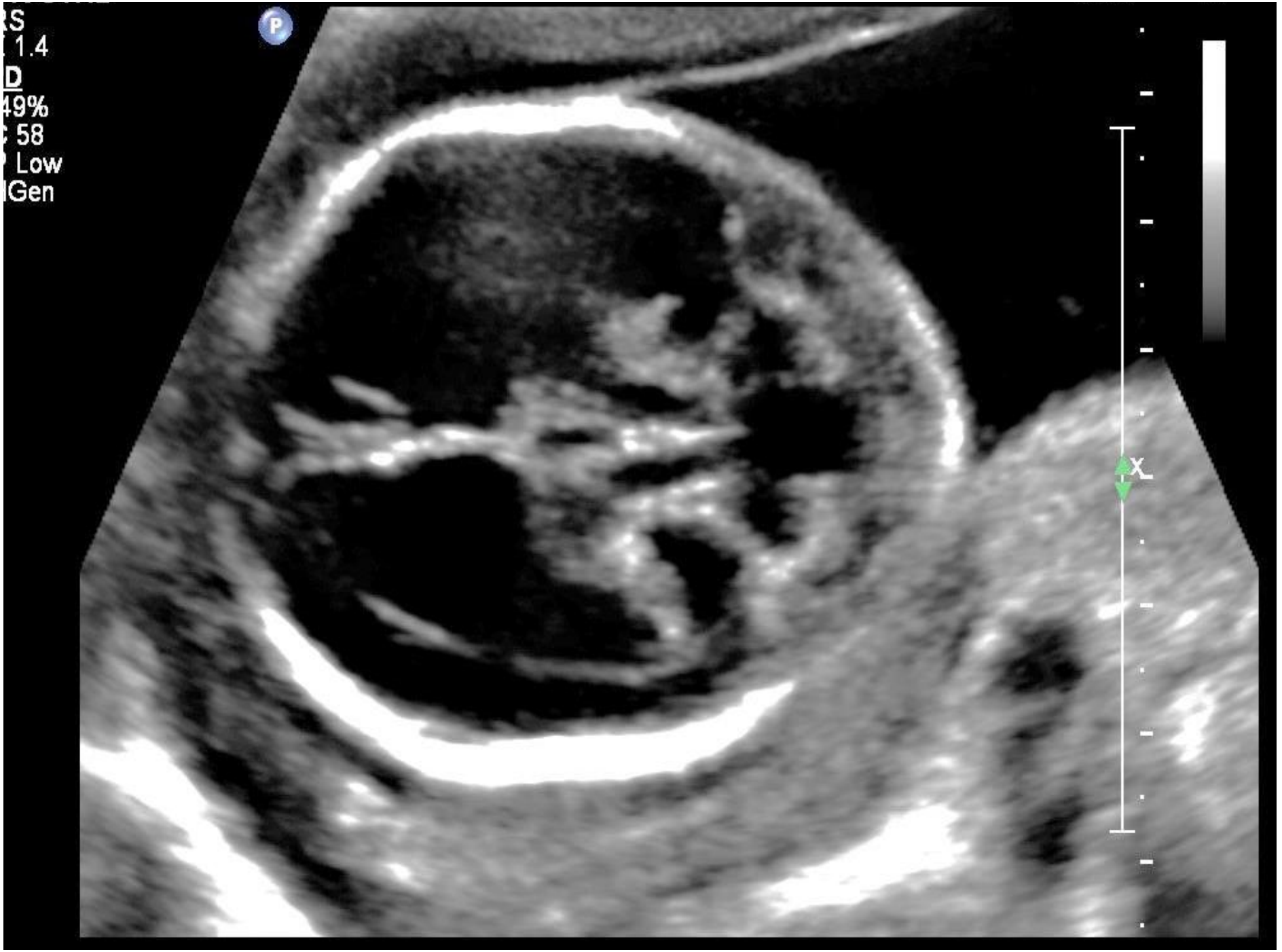

S
1.4
D
52%
58
Low
Gen
P
x

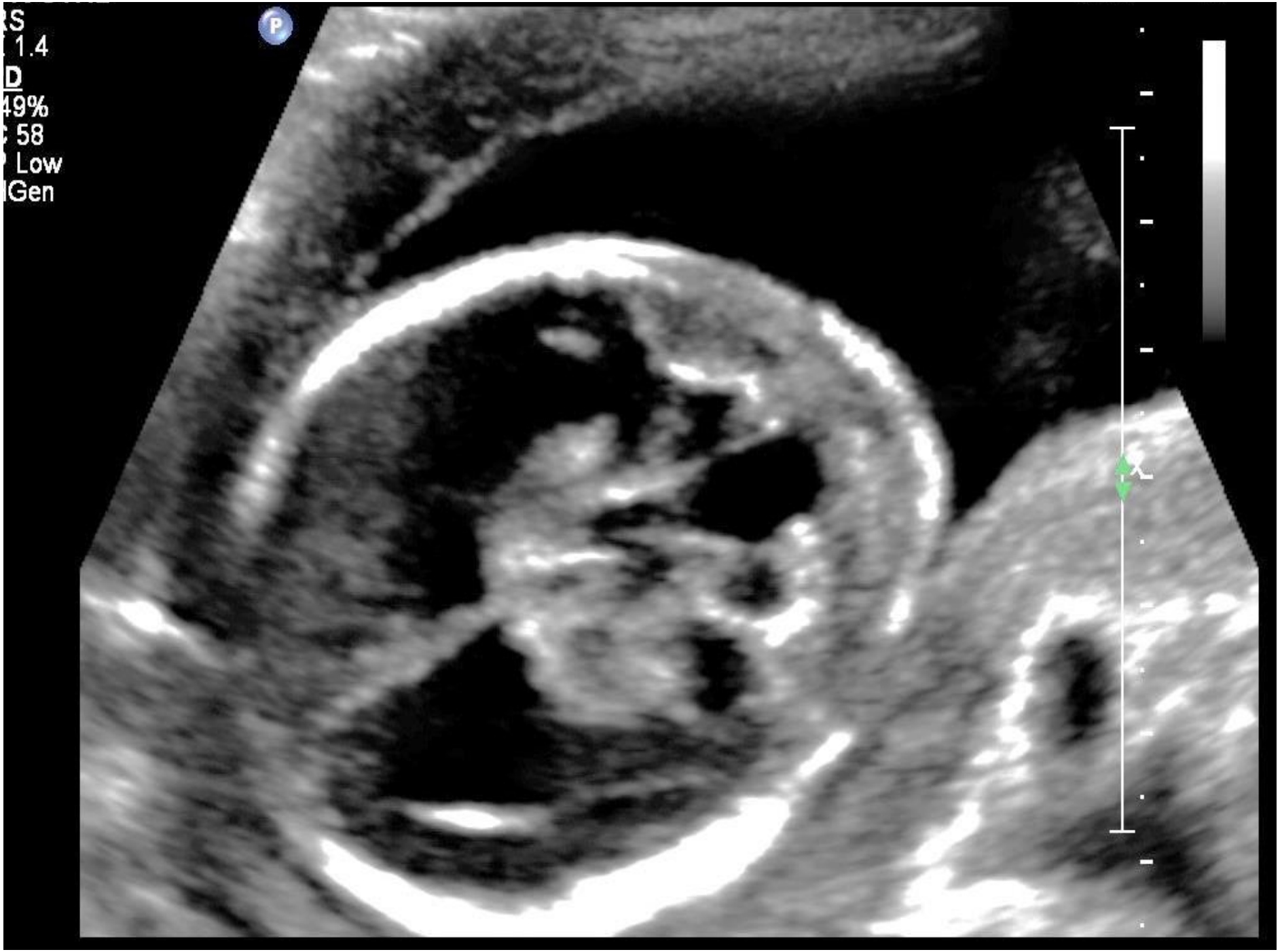


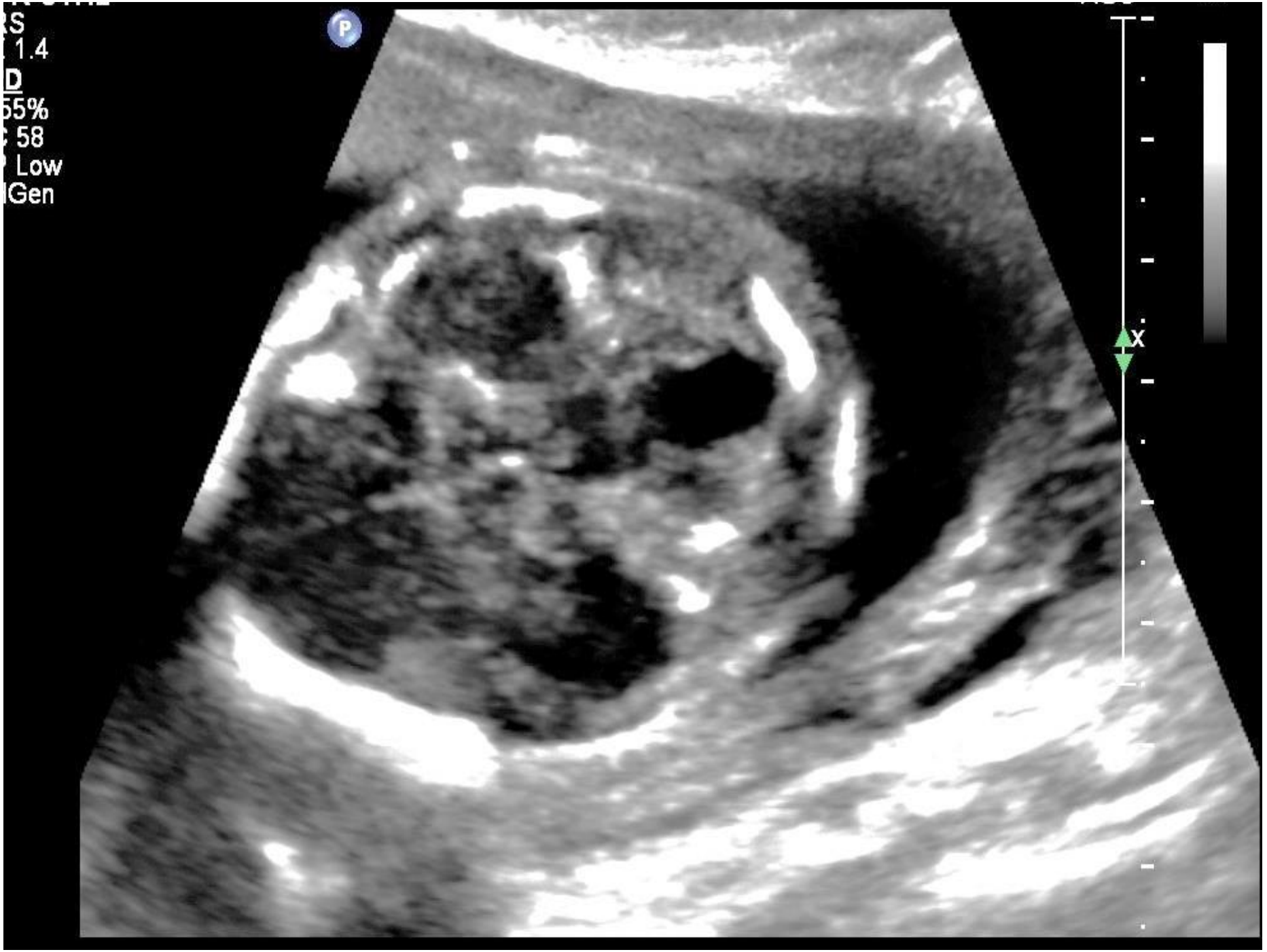

Left Lateral Ventricle




Right Lateral Ventricle


RS
1.4
D
49%
58
Low
Gen
P
X


RS
1.4
D
49%
58
Low
Gen


S
1.4
D
55%
58
Low
Gen
P
X

# US Findings

Dandy-Walker Malformation

Noncommunicating hydrocephalus
- Lt hydrocephaly = 14mm
- Severe Rt hydrocephaly = 18mm

Absent cerebellar vermis

Enlarged cisterna magna

Dilated 3rd ventricle

BPD > 97%

No other fetal abnormalities were found

# Follow Up

Patient was sent to U of M for a second opinion

The sonographic findings at U of M were consistent with the findings at MFM

Patient chose to terminate the pregnancy

# Dandy-Walker Malformation

Dandy-Walker Malformation indicates a defect in the cerebellar vermis with an enlarged cisterna magna and usually associated with hydrocephalus

Rare, seen in about 1 in 30,000 births

Diagnosis occurs after 18 weeks gestation due to the incomplete development of the posterior fossa

1:3 male to female ratio

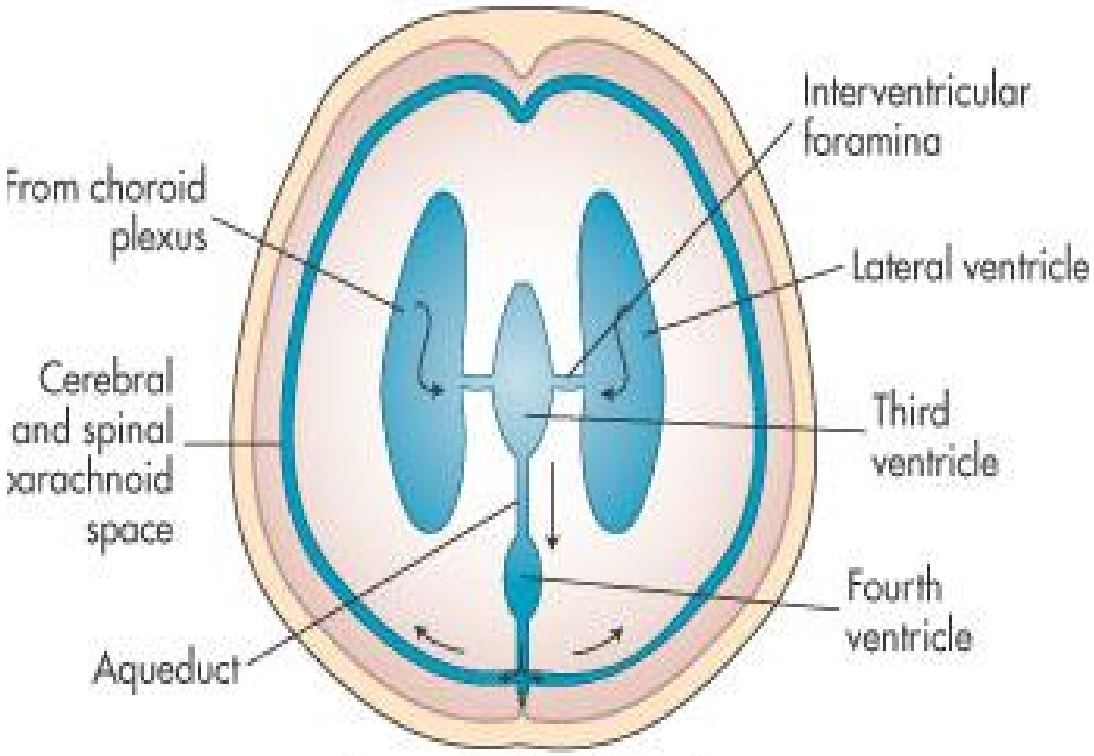
Linked to TORCH viruses, chromosome abnormalities, and other congenital anomalies

# Hydrocephalus

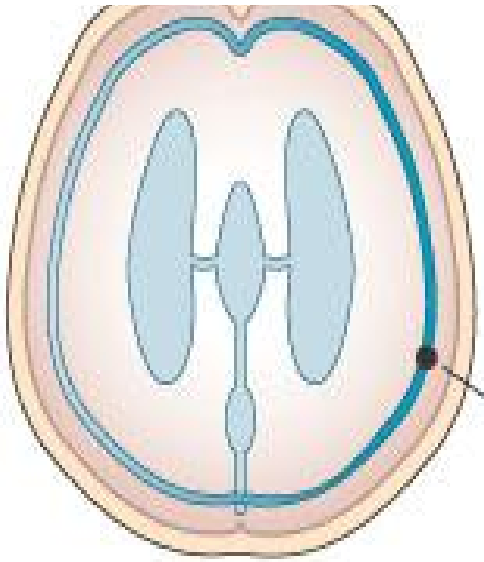
There are two types: communicating and noncommunicating

Communicating hydrocephalus is an obstruction that is outside the ventricular system and is associated with over production of CSF. An example of this is an arachnoid cyst.

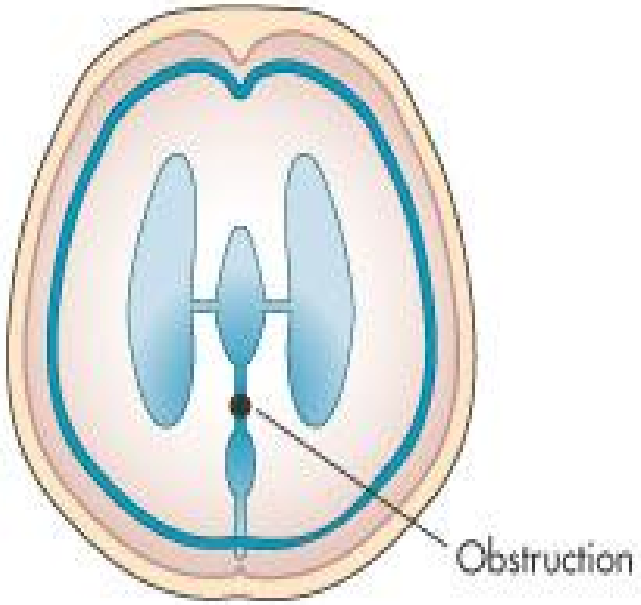
Noncommunicating hydrocephalus is an obstruction within the ventricular system and interferes with normal CSF circulation. An example of this is aqueductal stenosis.




Communication through median and lateral apertures




Communicating hydrocephaly




Noncommunicating hydrocephaly

# Sonographic Appearance of DWM

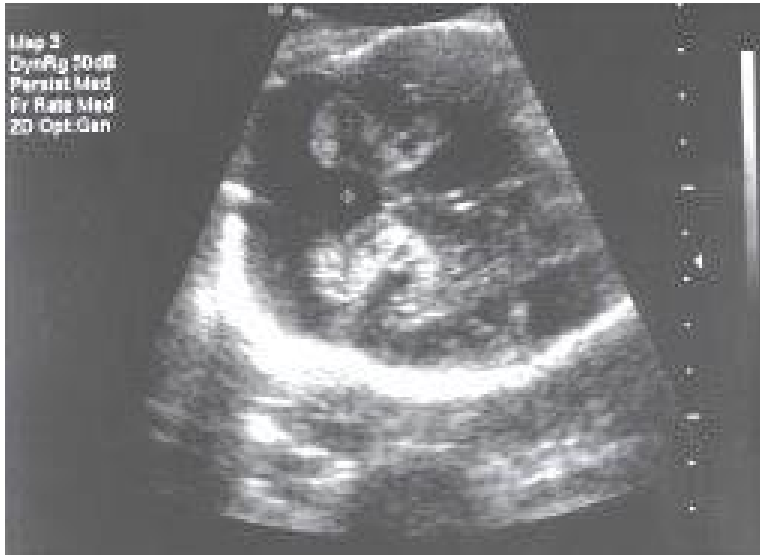
Complete or partial agenesis of the cerebellar vermis

Enlarged cisterna magna > 10mm

Other possible findings include:

Enlarged lateral ventricles > 10mm

Increased head circumference and/or BPD



# Prognosis

40% mortality in infancy and early childhood

The earlier the diagnosis is found in utero, the worse the prognosis is

Poor outcome if vermis is absent

Intellectual development is dependent on the severity of the defect in the vermis

Recurrence risk is 1-5%

# Treatment

Ventriculoperitoneal shunt which is surgically placed inside of the ventricles to redirect the fluid away from the brain and to restore normal flow and absorption of CSF

They often need:

Speech therapy

Physical therapy

Occupational therapy

Special education

# Thank you for your attention!