MSS Case Presentation

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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%)
Left Lateral Ventricle
Right Lateral Ventricle
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.
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
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!