

# **Common Ultrasound Findings**

## **Choroid Plexus Cyst**

### • What are choroid plexus cysts?

- The choroid plexus is the part of the brain that makes cerebrospinal fluid, the fluid that normally bathes and protects the brain and spinal column.
- In approximately 1-2% of normal fetuses, a tiny bubble of fluid is pinched off as the choroid plexus forms.
- $\circ$   $\;$  This appears as a cyst inside the choroid plexus on ultrasound.
- $\circ$  A choroid plexus cyst can be compared to a blister and is not considered a brain abnormality.
- What will happen to the cyst?
  - In the vast majority of cases, the cyst resolves or disappears and has no consequences.
- Does the size of the cyst matter?
  - Ordinarily the size does not matter, although multiple, large cysts are slightly more worrisome.

#### • What is the concern?

- Even though they are present in 1-2% of normal fetuses, in a very small percentage of fetuses with these cysts, there can be an associated chromosome disorder called trisomy 18.
- Fetuses with trisomy 18 have an extra copy of chromosome 18 and are frequently stillborn. Survivors beyond infancy are rare and have severe mental retardation and have other abnormalities of the heart, brain and kidneys. Fetuses with trisomy 18 have choroid plexus cysts about a third of the time.
- $\circ$   $\;$  Overall trisomy 18 is rare. It is present in less than 1 in 3000 newborns.

#### • What other tests can evaluate this?

- Many of the abnormalities associated with trisomy 18 are seen on a "level II" ultrasound. This is the anatomy ultrasound done between 18-20 weeks.
- If you have not yet had an alpha fetoprotein (AFP) lab test drawn, this can be done to further evaluate the chance of trisomy 18. A normal AFP test further reduces the likelihood of trisomy 18.
- Noninvasive (NIPT) is a lab test that can evaluate abnormalities including trisomy 13, 18 and 21.

 Amniocentesis is a diagnostic test that can be performed to count the number of chromosomes in the fetus to be certain there is not an extra copy of chromosome 18. There is a small risk of this procedure causing a miscarriage.

#### • Can I just wait to see if the cyst resolves?

 This won't help your decision as these cysts almost always resolve in both normal fetuses as well as those with trisomy 18. Even if it does resolve, it does not reduce the chance that the fetus has trisomy 18.

#### • What should I do?

- If you choose to do nothing further, you should be confident your baby most likely has normal chromosomes.
- As mentioned above, non-invasive labs such as AFP and NIPT can be drawn to further evaluate the chance of trisomy 18. If you wanted to be certain, the amniocentesis is a diagnostic method that carries some associated risks.