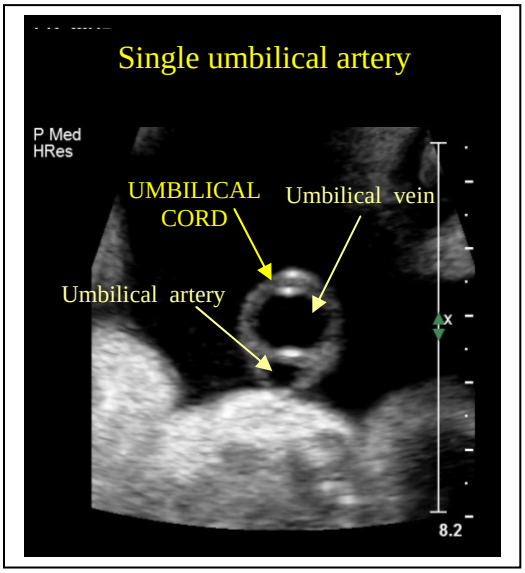
PRENATAL ULTRASOUND FINDINGS

Single Umbilical Artery

Ultrasounds are routinely done during pregnancy to help monitor the health of your baby. However, sometimes the ultrasound finds something a little different in the baby. This fact sheet will give you information about a finding known as **Single Umbilical Artery**.

What is a single umbilical artery?

During a routine prenatal ultrasound, one of the things the sonographer looks for is the presence of three blood vessels within the umbilical cord: one vein (which carries oxygen and nutrients from the mother to the baby) and two arteries (which move the fetal waste back to the mother, to be processed and disposed of by her kidneys). Sometimes there are only two blood vessels (one vein and one artery), instead of the usual three. A two-vessel cord is also known as a single umbilical artery (SUA) because one of the usual arteries is missing. This is a very common finding on ultrasound and is seen in about 1 out of every 100 pregnancies (~1%). Most pregnancies with a SUA have a normal prenatal course and a healthy baby at delivery, especially if there are no other findings on the ultrasound.



How does SUA happen?

No one knows for sure why this happens in some babies. It is believed that one artery may simply stop growing as it develops or perhaps the very early umbilical artery does not divide properly. The following features in a pregnancy make it more likely that a SUA will be seen:

- Multiple gestation (twins, triplets, etc)
- Caucasian ancestry
- Female fetal sex
- Mothers over 40
- Diabetes

However, SUA can be seen in any pregnancy, even if none of these features are present.

Can SUA cause problems for the baby?

Although one artery can certainly perform the job of two and sustain a perfectly healthy pregnancy, there are some concerns for the pregnancy when SUA is seen on ultrasound.

Studies have found that there is an increased risk for other birth defects to be present in a baby with SUA. This can include many different kinds of problems, such as heart defects, kidney abnormalities, and vertebral (spine) defects. Many of these birth defects are able to be seen by ultrasound. For this reason, a high resolution (level II) ultrasound is offered to carefully look at the baby's anatomy. If there are other ultrasound findings, more testing, such as amniocentesis, may be offered.

Another concern raised about SUA is the possible increased risk for slow fetal growth, preterm delivery, or stillbirth. However, not all studies agree that there is a greater risk for pregnancy complications. Your OB provider routinely monitors the growth of the baby. If there are concerns that the baby seems smaller than expected, another ultrasound in the last few months of pregnancy may be done to check the baby's growth.

What does "isolated" SUA mean?

If the high resolution ultrasound does not identify any other ultrasound findings, the SUA is considered the only finding, and is referred to as isolated SUA. While it is impossible to be completely certain that no other birth defects are present, most pregnancies with an isolated SUA will result in a healthy baby.

Where can I get more information?

You can speak with your doctor, nurse practitioner, nurse midwife, or a genetic counselor if you have additional questions about this ultrasound finding.

Kaiser Genetics Departments

Website: **http://genetics.kaiser.org/**

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