Single Umbilical Artery

The umbilical cord provides a connection between the developing fetus and the mother during pregnancy. The umbilical cord typically contains 3 blood vessels: two arteries and one vein. The umbilical vein transports oxygen-rich blood from the placenta to the fetus and the umbilical arteries return oxygen-poor blood and waste products to the placenta. Sometimes, only one umbilical artery fully develops and this is known as a single umbilical artery (SUA), or 2-vessel cord. A single umbilical artery is seen in approximately 0.5-1% of all pregnancies during the 2nd trimester. There are several other facts about SUA that you may want to know:

a) The vast majority of fetuses with a SUA are normal and healthy. In these cases, a SUA may be considered a minor normal variant which is more closely related to the placenta than the fetus. Because the umbilical arteries are no longer needed or used after birth, there is no concern or need to follow the baby after delivery.

b) Although not common, a SUA may be associated with growth delay of the fetus during pregnancy. The chances for low birth weight and preterm delivery may be slightly increased. For this reason, a follow-up ultrasound is typically recommended to monitor fetal growth during the third trimester when a SUA is identified.

c) Fetuses with a SUA may occasionally have other important abnormalities. Therefore, visualization of a SUA is a reminder to thoroughly examine the fetus by ultrasound to ensure the fetus otherwise appears normal. Fortunately, a detailed ultrasound performed at one of our centers is very accurate for detecting important abnormalities so there is no reason for concern when a SUA is the only finding (isolated SUA). In fact, it is reassuring that your baby was examined carefully and appears otherwise normal.

d) We do not offer genetic amniocentesis when we see a single umbilical artery as the only ultrasound finding. Other factors such as maternal age, screening tests results, or other ultrasound findings are much more important for determining the potential risk of an underlying chromosome abnormality. We correlate all of the ultrasound findings with other information and risk factors to estimate the risk of chromosome abnormalities for an individual patient and this can be discussed with you.

If you have further questions, please contact one of our genetic counselors.

Further information is available at www.fetalscreening.com and at www.fetalandwomens.com