LETTER TO EDITOR (VIEWER'S CHOICE)

LONG UMBILICAL CORD WITH MULTIPLE LOOPS ROUND THE FETAL NECK

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A 27 years second gravida came to us in active labour. Mother was not registered antenatally. The first delivery was a normal vaginal hospital delivery with no complications in the mother or the baby. No antenatal ultrasound was available. Intrapartum doppler fetal heart rate monitoring showed no evidence of decelerations. Hence the baby was delivered normally. Surprisingly, the baby had five loops of cord around the neck. The length of the cord measured 135 cm. The baby cried immediately at birth and had Apgar score of 8 & 9 at 1 & 5 minutes respectively. There were no true knots in the umbilical cord, the number and position of vessels in the cord were normal and the insertion of cord into the placenta was normal. There were no placental or congenital anomalies.

The length of the umbilical cord varies from no cord (achordia) to 300 cm, with diameters up to 3 cm. Umbilical cords are helical in nature, with as many as 380 helices. An average umbilical cord is 55 cm long, with a diameter of 1-2 cm and 11 helices (1). Umbilical cord is said to be long when it is more than 70 centimeters (1). Abnormally long cords are associated with repeated coiling of cord around fetal neck and consequently can result in fetal growth restriction, distress and even demise (2). Excessively long cords are associated with fetal entanglement, true knots, and thrombi (1).The length of the umbilical cord cannot be determined prenatally by conventional ultrasound. Theoretically, the only advantage the long cord may offer is a better harvest of stem cells. Fetus with four or more loops involved have significantly lower birth weight, more episodes of severe variable and late decelerations, meconium, and a higher incidence of operative delivery. For unknown reasons, most cords coil to the left. About 5% of cords are shorter than 35 cm, and another 5% are longer than 80 cm.

Nuchal cord is present in one-fourth of pregnancies but generally does not have major clinical significance (3). According to Larson, the occurrence of nuchal entanglement increases linearly from 5.8% at 20 weeks of gestation to 29% at 42weeks (4). The presence of two or more loops is estimated to affect between 2.5% to 8.3% of all pregnancies . Despite the good prognosis in most of the cases, some studies demonstrate that the presence of a nuchal cord is associated with variable fetal heart rate deceleration, decreased fetal movements, umbilical arterial metabolic acidemia, neonatal anemia, and, in extreme situations, intrauterine fetal demise (5). Variable decelerations commonly occur during the first and second periods of labor. When episodes of cord compression are sufficiently spaced, the fetus can clear the increased CO2 and maintain the oxygenation by using the oxygen reserve. However, if signs of fetal discomfort, such as decreased fetal movement or persistent fetal heart variable decelerations, or even signs of fetal distress like repeated late decelerations are present, operative intervention is recommended (6).

To conclude, although the presence of a single umbilical cord loop around neck does not require changes in the management of the pregnancy, the prenatal detection of multiple loops may alter the management and improve the outcome of these fetuses.

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