In Class Ideas for Week 3

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| With what conditions may a short umbilical cord be associated? |
|  A short umbilical cord measures less than 35 cm in length. This condition is associated with or predisposed to: oligohydramnios, restricted space (as in multiple gestations), intrinsic fetal anomaly, tethering of the fetus by an amniotic band, inadequate fetal descent, cord compression, and fetal distress. |

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| What is the risk of a velamentous insertion of the cord? |
| Velamentous insertion occurs when the cord inserts into the membranes before it enters the placenta rather than directly into the placenta. This condition occurs in 1% of singleton births, 12% of twins, and 9% of pregnancies with a single umbilical artery. There is an increased risk of thrombosis, cord rupture during delivery, or vasa previa. |

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| What conditions may predispose to cord presentation and prolapse? |
| Prolapse of the umbilical cord occurs when the cord lies below the presenting part. This condition may exist whenever the presenting part does not fit closely and fails to fill the pelvic inlet; further risk is incurred if the membranes rupture early. Compression of the cord reduces or cuts off the blood supply to the fetus and may result in fetal demise. Abnormal fetal presentation occurs in nearly half of the prolapse cord cases. A slightly higher risk is incurred when the fetus is in a transverse or breech presentation. Conditions predisposing to cord presentation and prolapse include: fetal abnormal presentation, nonengagement of the fetus because of prematurity, long umbilical cord, abnormal bony pelvic inlet, leiomyomas, polyhydramnios, vasa previa, velamentous insertion of the cord, marginal insertion of the cord in a low-lying placenta, and incompetent cervix with premature rupture of the membranes. |

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| Describe a marginal insertion of the cord. |
| The differential proliferation of placenta villi may result in eccentric insertion of the umbilical cord into the placenta. The cord implants into the edge of the placenta instead of into the middle of the placenta. This is significant when the cord is inserted near the internal os as labor may cause the cord to prolapse or be compressed during contractions. The marginal insertion occurs in 2% to 10% of singleton births, 20% of twins, and 18% of pregnancies with a single umbilical artery. |

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| What is the incidence of congenital anomalies in a fetus with a single umbilical artery? |
| Reports have found SUA in 18% of pregnancies with marginal insertion of the cord and in 9% with membranous insertion of the cord. The probable cause is atrophy of one of the umbilical arteries in the early development stage. The left umbilical artery is absent a slightly higher percentage of time than the right. Single umbilical artery has been associated with: congenital anomalies in 20% to 50% of cases, increased incidence of intrauterine growth retardation (small placenta), increased perinatal mortality, and increased incidence of chromosomal abnormalities. |