DMS 433

Ob Assignment

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| Name: |

1. Describe the difference between symmetric and asymmetric IUGR.

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| Symmetric growth restriction is characterized by a fetus that is small in all physical parameters (e.g., BPD, HC, AC, FL). This is usually the result of a severe insult in the first trimester. The causes may include low genetic growth potential, intrauterine infection, severe maternal malnutrition, fetal alcohol syndrome, chromosomal anomaly, or severe congenital anomaly.  Asymmetric growth restriction is the more common IUGR and is usually caused by placental insufficiency. This may be the result of maternal disease such as diabetes (classes D–F) or chronic hypertension, cardiac or renal disease, abruptio placenta, multiple pregnancy, smoking, poor weight gain, drug usage, or uterine anomaly. |

1. How is an amniotic fluid index obtained? What are normal values?

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| Phelan et al. developed a method for evaluating and quantifying amniotic fluid volume at different intervals during a pregnancy. They divided the uterine cavity into four equal quadrants by two imaginary lines running perpendicular to each other. The largest vertical pocket of amniotic fluid, excluding fetal limbs or umbilical cord loops, was measured. The sum of the four quadrants was determined and called theamniotic fluid index(AFI). Normal values were calculated for each gestational age (plus or minus 2 standard deviations). Normal is 8 to 22 cm; decreased is less than 5 cm; increased is greater than 22 cm. |

1. What are the five parameters used when performing a biophysical profile? How are the scores assigned? What are normal values?

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| **BPP:** Assign a value of two points to each of the following:  **Fetal breathing movement (FBM):** One episode for 30 seconds continuously during a 30-minute observation  **Gross body movement:** At least three discrete body/limb movements  in 30 minutes, unprovoked; continuous movement for 30 minutes should  be counted as one movement  **Fetal tone:** Active extension and flexion; at least one episode of limbs or trunk  **Fetal heart rate (FHR):** Also known as the non-stress test (NST); at least  two episodes of FHR of greater than 15 beats per minute and at least 15 seconds duration in a 20-minute period  **Amniotic fluid index (AFI):** One pocket of amniotic fluid at least  2 cm in two perpendicular planes; or AFI total fluid measures between 5 and 22 cm.  **Cardiac non-stress test (NST):** The following conditions indicate a reactive, or normal, NST and score two points:  Two fetal heart rate accelerations of fifteen beats per minute or more  Accelerations last at least 15 seconds  Gross fetal movements are noted over 20 minutes without late decelerations |

1. What are the common indices used to evaluate an obstetric Doppler waveform?

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| Two main types of measurements can be taken from a Doppler waveform: quantitative and qualitative. Quantitative Doppler flow measurements include blood flow and velocity; whereas qualitative measurements look at the characteristics of the waveform that indirectly approximate flow and resistance to flow. Qualitative measurements include systolic to diastolic ratio (S/D ratio),resistance index (RI), and pulsatility index. |

1. How can one differentiate between amniotic sheets and amniotic band syndrome?

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| The sonographer may observe these bands as the real-time obstetric study is performed to observe where the band is attached to the uterine wall and what, if any, constriction is placed on the fetus. The careful observation with real-time allows the sonographer to observe if the fetus is free from the band or if the movement is restricted. Uterine sheets (synechiae) should not be confused with amniotic bands. |