

Name: Lucy Siranides

Class Prep – Fetal Monitoring

Using your textbook (pp. 355-373, 383-385) and the provided PowerPoint, answer the following questions.

1. What are common causes of fetal tachycardia?

Fetal tachycardia can result from many other causes not directly related to the interruption of fetal oxygenation. For example, tachycardia can be caused by maternal fever or infection or fetal anemia; or in response to medications such as atropine, hydroxyzine, terbutaline, or illicit drugs such as cocaine or methamphetamines. Maternal hyperthyroidism can sometimes result in fetal hyperthyroidism and tachycardia. Tachycardia can also be caused by abnormalities involving fetal cardiac pacemakers and/or cardiac conduction system. [pg. 364]

2. What causes late decelerations?

Late decelerations are caused by a reflex fetal response to transient hypoxemia during a uterine contraction (UC) that reduces the delivery of oxygenated blood to the intervillous space of the placenta. If interruption of fetal oxygenation results in metabolic acidemia, late decelerations may result from direct hypoxic myocardial depression during contraction. A number of conditions can cause disruption of oxygen transfer from the environment to the fetus, resulting in late decelerations. Examples of such conditions include maternal hypotension and uterine tachysystole. [pg. 365]

3. What causes variable decelerations?

Variable decelerations are caused by compression of the blood vessels in the umbilical cord and can occur with or without UCs. [pg. 367]

4. What is the cause of early decelerations?

Early decelerations are thought to be caused by transient fetal head compression. [pg. 365]

5. What are accelerations a response to?

Accelerations are a response to fetal movement or can be spontaneous. If accelerations do not occur spontaneously, they can be elicited by fetal scalp or vibroacoustic stimulation. Another possible cause of accelerations is transient compression of the umbilical vein, resulting in decreased fetal venous return and a reflex rise in heart rate. [pg. 365]

6. What is the normal range for the fetal heart rate?

The normal FHR range is 110 to 160 beats/min. [pg. 362]

Name: Lucy Siranides

7. What category tracing (I, II, or III) clearly indicates a fetus in distress?

Category III fetal heart rate (FHR) tracing clearly indicates a fetus in distress as these are abnormal. [pg. 370]

8. What equipment is used to evaluate contractions with external monitoring?

An ultrasound transducer and a tocotransducer are equipment used to evaluate contractions with external monitoring. An ultrasound transducer works by reflecting high-frequency sound waves off a moving interface (i.e., the fetal heart and valves). A tocotransducer or tocodynamometer measures uterine activity (UA) transabdominally. [pg. 360]

9. What fetal heart pattern is the most concerning?

Absent variability of the FHR is the most concerning. This means the FHR is undetectable and there is no discernible variation within the 10 second blocks (smooth line). [slide 23, "Fetal Monitoring"]

10. What is the most important indicator of fetal status?

The most important indicator of fetal status is variability as it demonstrates the acid base balance of the baby, at that moment in time. Variability is the changes in the heartrate from baseline. The heartrate should fluctuate periodically but should never be a straight line. The presence of moderate variability reliably predicts the absence of fetal metabolic acidemia at the time observed. [slide 20, "Fetal Monitoring"]