Relias Fetal Heart Monitoring Practice Test (Sample)

Study Guide

Everything you need from our exam experts!

Questions

1. What is considered tachycardia in a fetus?

- **A. A fetal heart rate of more than 150 beats per minute**
- **B. A fetal heart rate of more than 160 beats per minute**
- **C. A fetal heart rate of more than 170 beats per minute**
- **D. A fetal heart rate of more than 180 beats per minute**

2. What is a maternal factor that can contribute to prolonged decelerations?

- **A. Supine position**
- **B. Uterine contractions**
- **C. Healthy diet**
- **D. Hydration**

3. What impact does epidural anesthesia have on fetal heart rate?

- **A. It has no significant effect**
- **B. It may cause transient changes due to maternal blood pressure effects**
- **C. It consistently raises fetal heart rate**
- **D. It leads to immediate bradycardia**

4. What indicates a "reactive" biophysical profile?

- **A. Less than one fetal heart rate acceleration**
- **B. At least two fetal heart rate accelerations with normal parameters**
- **C. No fetal heart rate changes detected**
- **D. Continuous fetal heart braking patterns**

5. What is a characteristic of fetal hypoxia during labor?

- **A. High fetal heart rate variability**
- **B. Presence of accelerations**
- **C. Recurrent decelerations**
- **D. Steady fetal heart rate**

6. What does well-oxygenated status in a fetus typically indicate regarding FHR variability?

A. Increased heart rate

B. Moderate variability

C. Severe variability

D. No variability

7. What are the two main types of fetal heart monitoring?

A. Continuous auscultation and intermittent electronic monitoring

B. Continuous electronic fetal monitoring and intermittent auscultation

C. Visual monitoring and manual palpation

D. Direct and indirect fetal monitoring

8. What maternal condition is NOT associated with late decelerations?

A. Hypovolemia

B. Severe migraines

C. Hypotension

D. Asthma

9. Which type of decelerations occur with fewer than 50% of contractions during a 20 minute period?

A. Recurrent decels

B. Intermittent decels

C. Episodic decels

D. Variable decels

10. What fetal heart rate is classified as bradycardia?

A. A fetal heart rate of less than 120 beats per minute

B. A fetal heart rate of less than 130 beats per minute

C. A fetal heart rate of less than 110 beats per minute

D. A fetal heart rate of less than 100 beats per minute

Answers

1. B
2. A
3. B
4. B
5. C
6. B
7. B
8. B
9. B
10. C

Explanations

1. What is considered tachycardia in a fetus?

A. A fetal heart rate of more than 150 beats per minute

B. A fetal heart rate of more than 160 beats per minute

C. A fetal heart rate of more than 170 beats per minute

D. A fetal heart rate of more than 180 beats per minute

Tachycardia in a fetus is defined as a fetal heart rate that exceeds 160 beats per minute. This threshold is established based on clinical observations and research indicating that a heart rate above this level may suggest potential distress or complications in fetal health. A heart rate that is consistently high can indicate various conditions, including fetal hypoxia, maternal fever, or infection. Recognizing this threshold is crucial for healthcare providers as it guides monitoring and interventions that may be necessary to ensure the well-being of both the fetus and the mother during labor and delivery. Understanding the implications of a fetal heart rate above 160 bpm allows for timely assessments and appropriate clinical responses to safeguard the fetal health.

2. What is a maternal factor that can contribute to prolonged decelerations?

A. Supine position

B. Uterine contractions

C. Healthy diet

D. Hydration

The supine position of the mother can contribute to prolonged decelerations in fetal heart rate due to the potential for compression of the inferior vena cava. When a pregnant woman lies flat on her back, the weight of the uterus can press against this large vein, which is responsible for returning blood from the lower body to the heart. This compression can reduce blood flow, leading to decreased oxygen delivery to the fetus and resulting in fetal stress, which is reflected as prolonged decelerations in the fetal heart rate. In contrast, the other options do not typically have the same negative impact. Uterine contractions, for instance, can influence fetal heart rate patterns, but they are not a direct factor like the supine position. A healthy diet and proper hydration are generally associated with positive maternal and fetal outcomes and are unlikely to contribute to complications like prolonged decelerations.

3. What impact does epidural anesthesia have on fetal heart rate?

A. It has no significant effect

B. It may cause transient changes due to maternal blood pressure effects

C. It consistently raises fetal heart rate

D. It leads to immediate bradycardia

Epidural anesthesia can cause transient changes in the fetal heart rate due to its effects on maternal blood pressure. When the epidural is administered, it can lead to a decrease in maternal blood pressure, especially during the early stages of administration. This drop in blood pressure can subsequently reduce uteroplacental perfusion, potentially resulting in a temporary decrease in the oxygen supply to the fetus. As a compensatory mechanism, the fetal heart rate may then exhibit transient changes, which can be monitored during labor. The variability in fetal heart rate patterns observed may reflect these physiological responses, highlighting the importance of close monitoring of both maternal parameters and fetal well-being during and after the administration of epidural anesthesia. Understanding this relationship is crucial for clinicians to ensure both maternal comfort and fetal safety during labor.

4. What indicates a "reactive" biophysical profile?

A. Less than one fetal heart rate acceleration

B. At least two fetal heart rate accelerations with normal parameters

C. No fetal heart rate changes detected

D. Continuous fetal heart braking patterns

A "reactive" biophysical profile is indicative of a well-functioning placenta and a healthy fetus. The criteria for this determination include the presence of at least two fetal heart rate accelerations within a specific timeframe, typically over a 20-minute to 30-minute period, with the accelerations meeting defined parameters such as increases in heart rate that are appropriate for the gestational age of the fetus. This assessment reflects the fetus's ability to respond appropriately to stimuli, which is a sign of an active and healthy fetus. Therefore, observing at least two accelerations that meet the normal criteria is a reassuring sign and is what classifies the biophysical profile as "reactive." In contrast, the other scenarios presented do not indicate a healthy or reactive profile, as they either lack the necessary accelerations or present abnormal heart rate patterns. Understanding these distinctions is crucial for evaluating fetal well-being and making clinical decisions during monitoring.

5. What is a characteristic of fetal hypoxia during labor?

A. High fetal heart rate variability

B. Presence of accelerations

C. Recurrent decelerations

D. Steady fetal heart rate

Fetal hypoxia during labor is characterized by recurrent decelerations in the fetal heart rate. This phenomenon occurs as a response to a lack of sufficient oxygen. Recurrent decelerations indicate that the fetal heart is under stress, often due to factors such as umbilical cord compression, uteroplacental insufficiency, or other issues that may impair the oxygen supply to the fetus. This pattern is concerning and suggests the need for closer monitoring and possible intervention to address the underlying causes of the hypoxia. Other potential heart rate patterns, such as high variability, presence of accelerations, or a steady heart rate, are typically not associated with fetal hypoxia. High variability and accelerations generally indicate fetal well-being and a healthy response system, while a steady heart rate could suggest a lack of stress or distress in the fetus, which is contrary to the implications of hypoxia.

6. What does well-oxygenated status in a fetus typically indicate regarding FHR variability?

A. Increased heart rate

B. Moderate variability

C. Severe variability

D. No variability

Well-oxygenated status in a fetus is associated with moderate fetal heart rate (FHR) variability, which reflects a healthy and functional autonomic nervous system. Moderate variability indicates that the fetus is responding appropriately to stimuli and has a robust cardiovascular response, often suggesting that the fetus has adequate oxygen levels and is not experiencing distress. In clinical practice, moderate variability is a reassuring sign, as it is indicative of good fetal health. It demonstrates that the fetus is able to exert influences on its heart rate through normal reflexes. When the fetus is well-oxygenated, you would expect to see fluctuations in the FHR that are neither too minimal nor too excessive. In contrast, other conditions involving changes in FHR variability could indicate potential fetal distress or compromised oxygenation, which is why moderate variability serves as an important marker for monitoring fetal well-being during labor and delivery.

7. What are the two main types of fetal heart monitoring?

A. Continuous auscultation and intermittent electronic monitoring

B. Continuous electronic fetal monitoring and intermittent auscultation

C. Visual monitoring and manual palpation

D. Direct and indirect fetal monitoring

The identification of the two main types of fetal heart monitoring as continuous electronic fetal monitoring and intermittent auscultation is accurate because these methods are widely recognized in clinical practices for assessing fetal well-being during labor. Continuous electronic fetal monitoring involves the use of specialized equipment that continuously records the fetal heart rate and uterine activity, providing real-time data on the fetus's condition. This method allows healthcare providers to detect any abnormalities or distress quickly, which is crucial for timely interventions. Intermittent auscultation, on the other hand, is a less invasive method where the fetal heart rate is listened to at regular intervals using a handheld Doppler device or a stethoscope. This technique is particularly beneficial for low-risk pregnancies, allowing for mobility and a more natural labor environment while still ensuring that the fetal heart rate is monitored adequately. These two methods cover a spectrum from continuous, detailed assessment with electronic monitoring to more sporadic checks with auscultation, catering to different clinical scenarios and patient needs.

8. What maternal condition is NOT associated with late decelerations?

A. Hypovolemia

B. Severe migraines

C. Hypotension

D. Asthma

Late decelerations in fetal heart rate monitoring are typically associated with conditions that can affect uteroplacental perfusion, leading to a decrease in oxygen delivery to the fetus during contractions. These conditions often include issues like maternal hypotension or hypovolemia, which can impair blood flow to the placenta, resulting in late decelerations. Severe migraines may cause discomfort and stress but are not directly linked to the physiological changes that affect fetal heart rate patterns. Unlike the other conditions, which relate to blood flow or placental function, severe migraines do not have a clear pathophysiological mechanism that would result in late decelerations. Therefore, this makes it the condition least associated with late decelerations. Asthma and hypotension are known to potentially influence fetal heart rate patterns, especially in the context of reduced oxygen delivery or compromised maternal health. Hypovolemia similarly impacts blood volume and circulation to the placenta, thus leading to the possibility of late decelerations occurring.

9. Which type of decelerations occur with fewer than 50% of contractions during a 20 minute period?

A. Recurrent decels

B. Intermittent decels

C. Episodic decels

D. Variable decels

Intermittent decelerations are characterized by their occurrence with fewer than 50% of contractions within a specified time frame, such as a 20-minute period. This classification denotes that these decelerations are not consistently associated with contractions, thereby differentiating them from other types that occur more regularly or continuously. For instance, recurrent decelerations happen with at least 50% of contractions and suggest a more enduring fetal response to stress during labor. Conversely, episodic decelerations are independent of uterine contractions and can be temporarily seen during certain activities or events, indicating a sporadic pattern. Variable decelerations can occur at any time, often in response to umbilical cord compression, but may also include elements of recurrence or intermittence based on their frequency and duration. Overall, intermittent decelerations signal a more sporadic pattern of fetal heart rate change in relation to contractions, making this classification essential for understanding fetal well-being during labor.

10. What fetal heart rate is classified as bradycardia?

A. A fetal heart rate of less than 120 beats per minute

B. A fetal heart rate of less than 130 beats per minute

C. A fetal heart rate of less than 110 beats per minute

D. A fetal heart rate of less than 100 beats per minute

Bradycardia in a fetus is identified when the heart rate drops below a specific threshold that signals potential distress or abnormality. A fetal heart rate of less than 110 beats per minute is widely recognized as bradycardia, making this choice the correct answer. A heart rate lower than this can indicate issues such as fetal hypoxia (a lack of oxygen), which may arise from various complications during pregnancy or labor. Recognizing this threshold is important for healthcare providers as it necessitates further assessment and intervention to ensure the well-being of the fetus. Monitoring fetal heart rates, especially during labor, helps in making timely decisions to prevent complications related to fetal distress.