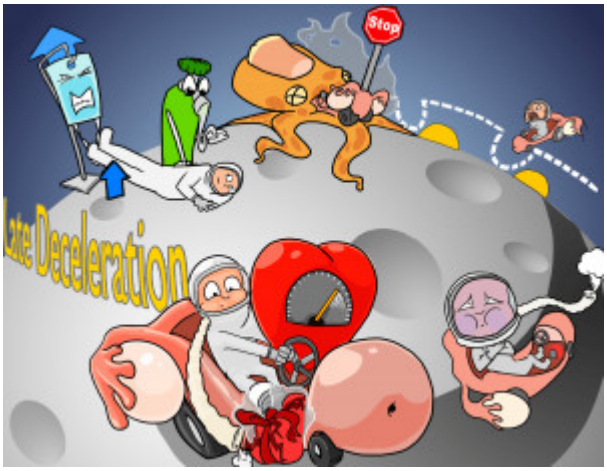
Late Decelerations

Decelerations which are caused by a parasympathetic response during labor can be benign in nature (a normal pattern occurrence) or can be abnormal or nonreassuring. They are identified visually on a fetal monitor tracing by when they occur in the contraction cycle either the onset or at the end of a contraction and also by their shape. A late deceleration is a gradual decrease and return to the baseline FHR during the contraction with the lowest point (nadir) occurring after the peak of the contraction. It does not return to the FHR baseline until after the contraction is over.



PLAY PICMONIC

Cause

Uteroplacental Insufficiency

Uterus-placenta-present Broken

When there is insufficient oxygenation between the placenta and fetus, uteroplacental insufficiency occurs and causes late decelerations.

Occurs During

Disruption of Oxygen Transfer to Fetus

Fetus with Disrupted Oxygen supply

There are many causes for late decelerations, such as uterine tachysystole, which occurs when there are more than 5 contractions in 10 minutes. Frequent contractions do not allow sufficient recovery and adequate oxygen exchange in the placenta. Other conditions are maternal supine hypotension, placental previa, hypertensive disorders, diabetes mellitus, intraamniotic infection, intrauterine growth restriction, epidural or spinal anesthesia, and postmaturity.

Considerations

Abnormal Pattern

Abnormal Pattern

A late deceleration is associated with fetal hypoxemia, acidemia, and low Apgar scores. When late decelerations become persistent or repetitive, it is considered an ominous sign, especially when associated with fetal tachycardia and loss of contraction variability.

Interventions

Discontinue Oxytocin

Stopped Octopus-toe

If oxytocin (Pitocin) is infusing, it should be discontinued until the late decelerations are corrected. This will slow the rate and strength of the contractions to allow for better perfusion of the placenta.

Oxygen with Non-Rebreather (8-10 L/min)

02-tank with Non-rebreather-mask

It is important to provide oxygen by nonrebreather face mask to the mother to alleviate the shortage of oxygen exchanging across the placental to the fetus.

Side-lying Position

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An immediate and priority nursing action would be to change the laboring patient's position to side-lying to eliminate any supine hypotension issue.

Elevate Legs

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When maternal blood pressure is low, it is helpful to elevate the legs to assist with alleviating maternal hypotension.

Increase Rate of IV Solution

Up-arrow IV

Dehydration and hypovolemia can cause a reduction of blood flow to the placenta, so by increasing the rate of the maintenance IV solution will address this problem.