Hypoglycemia Assessment

Hypoglycemia is a condition characterized by an abnormally low level of blood glucose (generally < 70 mg/dL), which serves as the body's main energy source. Causes for this include excess insulin, as well as decreased glucose.

PLAY PICMONIC

Mechanism

Too much insulin
Too many Insect-syringes
Insulin lowers blood glucose by facilitating uptake and the use of glucose by the body. It also decreases the release of glucose from the liver. Situations that present hyperinsulinemia may include a lack of regulatory responses in the body, a direct injection dosing of too much insulin, or medications increasing the body's response to insulin.

Decreased glucose
Down-arrow Glue-bottle
Because glucose is the body's main energy source, low levels may occur due to excessive physical activity, missed meals, or improper medications such as the wrong type of insulin administration.

Assessment

< 70 mg/dL
Less-than 70
Any blood glucose level below 70 mg/dL is termed hypoglycemia. This should be addressed before life threatening symptoms take effect. Having the patient ingest simple carbohydrates at first will help rapidly raise the blood glucose. Symptoms of hypoglycemia may manifest at different blood glucose levels depending on several physiologic factors.

Change in LOC
Delta Halo
The patient will likely start experiencing a decline in mental status, which if untreated, could progress to an unconscious state depending on the level of hypoglycemia.

Lethargic
Leather-jacket
Lethargy is a state of being drowsy or listless. The patient may be difficult to arouse, presenting with signs of an unsteady gait or slurred speech.

Confusion and Irritability
Confucius Irritated
Another change in behavior may include the patient being overly agitated or unaware of their surroundings. Patients may present as combative.

Tremors
Trimmer
Adrenergic stimulation initiates the release of epinephrine in an attempt to increase glucagon. This may cause tremors, diaphoresis, anxiety and tachycardia. It is important to note that these mechanisms may be suppressed in a patient taking beta blockers.

Diaphoresis

Sweaty-sweatband

A state of profuse sweating causing cool clammy skin. Adrenergic stimulation initiates the release of epinephrine in an attempt to increase glucagon. This may cause diaphoresis, anxiety, tachycardia and tremors. It is important to note that these mechanisms may be suppressed in a patient taking beta blockers.

Tachycardia

Tac-heart-card

Adrenergic stimulation initiates the release of epinephrine in an attempt to increase glucagon. This may cause tachycardia, diaphoresis, anxiety and tremors. It is important to note that these mechanisms may be suppressed in a patient taking beta blockers.

Vision Changes

Delta Eyes

Vision changes may include dilated pupils (mydriasis), double vision (diplopia), or blurred vision.

Weakness

Weak drooping-muscle

Reduced glucose delivery to the brain causes changes in neuronal kinase activity and firing rates, resulting in the patient experiencing generalized weakness.

Seizures

Caesar

In adults seizures typically manifest at very low blood glucose levels. A special consideration is that neonates presenting initially with seizures soon after birth should be considered hypoglycemic until a toxicology screening is performed.