

Hyperkalemia (OLD VERSION)

Hyperkalemia is the condition in which a person's serum potassium level is higher than normal. It can result from a number of causes, such as severe tissue trauma, untreated Addison's disease, acute acidosis, misuse of potassium-sparing diuretics, or overdose with IV potassium.



PLAY PICMONIC

Assessment

> 5.0 mEq/L K+

Greater than (5) Hand

Hyperkalemia is defined as a serum potassium level higher than 5.0 mEq/L. Levels higher than 7.0 mEq/L can be life-threatening due to its effect on the cardiac muscle and requires immediate treatment.

Abdominal Cramps

Abdominal Clamps

Abdominal cramps occur as a result of hyperactivity of smooth muscle within the peritoneal cavity.

Muscle Weakness

Weak-drooping-muscle

Muscle weakness may occur as a result of increased potassium outside of the cell.

Diarrhea

Toilet

Like abdominal cramping, diarrhea can occur due to the effect of high potassium on smooth muscle, which causes an increase in peristalsis.

Arrhythmia

Broken Arrhythmia-drum

Cellular excitability as a result of hyperkalemia causes a decrease in cardiac depolarization, which affects cardiac conduction. This can result in a variety of cardiac arrhythmias, including ventricular fibrillation or cardiac standstill.

Tall, Peaked T Waves

Tall-Mr. T on Peaked-wave

Due to the faster depolarization of the cardiac action potential from the ventricles, the QT interval is shortened resulting in a narrow and peaked T wave.

Interventions

Infusion of Glucose and Insulin

Infusing Glue-bottle and Insect-syringe

Patients with hyperkalemia are given infusions of glucose and insulin to drive potassium into cells and thereby decreasing extracellular potassium levels.

Diuretics

Die-rocket

In mild cases of hyperkalemia and when the kidneys are functioning properly, loop or thiazide diuretics can be given to increase the excretion of potassium from the circulatory system.

Kayexalate**Kayak**

Oral or rectal administration of kayexalate, an exchange resin that absorbs potassium, may be given to remove potassium over several hours through defecation.

Prevention Education**Prevention Educator**

Preventing recurrence of hyperkalemia involves educating the patient to reduce dietary potassium, removing an offending medication, or the addition of a diuretic.