

Potassium

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Potassium Introduction Potassium is a crucial element in the body that is responsible for both cellular and electrical function. The blood serum contains between 3.5 and 5 mg of potassium in every 100 ml. The body potassium is derived from dietary sources, with the element well absorbed from the intestines. Excess potassium in the body is eliminated through urine while others are still eliminated via sweating. Adrenal hormone is responsible for the stimulation actions for elimination of potassium from the body; however, coffee, sugar, alcohol and diuretics can contribute to low levels of potassium (Alderman et al., 2012).

Hyperkalemia and hypokalemia

Hyperkalemia is the increased serum levels of potassium in excess of 5mg/100 ml. Potassium is critical for the functionality of the heart, muscles and nerves, thus an increased level of potassium would result in muscle weakness, oliguria, respiratory distress, decreased contractility of the heart and hyperreflexia or flaccidity of the skeletal muscles. Hyperkalemia is caused by dysfunction of the kidney, adrenal gland disease or cell shift of potassium, from cells to blood circulation.

Hypokalemia is the low concentration of potassium in the blood; less than 3.5mg/100ml. Hypokalemia is caused by insufficient dietary consumption of potassium, gastrointestinal fluid loss and urinary loss especially when one is on diuretics. Hypokalemia presents with signs and symptoms of muscle weakness, abnormal heart rhythms, tremor, flaccid paralysis hyporeflexia and constipation (Jung et al., 2009).

Nursing interventions in Hyperkalemia and hypokalemia

A nurse must be very vigilant in monitoring for signs of hyperkalemia and

hypokalemia to enhance early management of the condition. This would include the action of the nurse to periodically monitor vital signs, heart rhythm, cardiovascular status and the abdomen for signs of distention, bowel sounds and pain. The nurse would then notify the physician of the abnormal findings that are an indication of either hyperkalemia or hypokalemia. The physician would then order appropriate medication for the treatment of the condition. During the course of management, the nurse would engage the patient and the family on health education in relation to the condition as a means of preventing reoccurrence of the condition (Porth, 2011).

References

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