The Older Adult and Dehydration 2.0 CE Hours

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Objectives:

1. Discuss the problem of dehydration in the older patient.
2. Differentiate between dehydration caused by an excessive loss of water and fluid and dehydration caused by impaired water/fluid ingestion.
3. Recognize the nursing assessment of fluid and electrolyte status.
4. Discuss the most common signs and symptoms of dehydration in the older adult.
5. Identify interventions for the management of dehydration in the older adult.

Overview

The number of Americans 65 years old and older is growing rapidly. It is estimated that by the year 2030, every fifth American will be over the age of 65. It is important that nurses keep up on the most recent findings regarding care of the older adult. The five most common cognitive diagnoses seen in the older adult are referred to as the "five D's". The five D's include: **d**ehydration, **d**rugs, **d**epression, **d**ementia, and **d**elirium. This course will focus on **dehydration** in the older adult.

Because the older adult goes through several physiologic changes, they are more prone to dehydration than younger people. The older adult has 10 percent less body fluid than younger people. Also, since the older adult's sense of taste decreases with age, they may have less interest in food, which

contains water. They are often not quick to respond to their body's needs, such as thirst, and may simply not drink enough. The older adult may have a physical inability to drink easily so their fluid intake would be less.

Dehydration is the most common form of electrolyte disorder in older adults. When a person is dehydrated, there is a loss of water and electrolytes, (specifically potassium and sodium) in the circulating blood or extracellular fluid. Vital organs (kidneys, liver, brain, and heart) cannot function without a certain minimum of electrolytes. The two most common causes of dehydration are an excess loss of water or fluid and impaired water/fluid ingestion.

Impaired water/fluid ingestion results from:

- Decrease in thirst sensation
- Decreased functional ability
- Cognitive impairment
- Sensory changes
- NPO
- Nausea/Vomiting
- Imposed IV or PO fluid restrictions
- Fatigue
- Pain

Excess loss of water/fluids results from:

- Infections
- Environmental conditions
- Sensory changes
- Vomiting
- Blood loss
- Fever
- Ascites
- Abnormal drainage
- Diarrhea
- Diuretics

- Bowel Preparations

Nursing assessment of fluid and electrolyte status includes:

- Daily weights
- Accurate I & O
- Skin turgor–sternum
- Communicate to the PCP about: central venous pressure, serum electrolytes, hemoglobin and hematocrit, blood urea nitrogen, creatinine
- Medication evaluation
- History of dehydration
- Immediate post-operative status
- Nutritional status: NPO, need for other forms of nutrition

Electrolyte abnormalities often seen with dehydration include:

1. Hyperkalemia (blood level > 5.5 mEq/L)

ECG changes: peaked T-wave, widened QRS, absent P-wave, depressed ST segment, cardiac dysrhythmias

Symptoms may include abdominal cramping and diarrhea, muscle irritability/ fatigue and numbness or tingling

2. Hypocalcemia (blood level < 3.5 mEq/L)

ECG changes: premature ventricular contractions, ST depression, depressed and inverted T-wave and prominent U-wave

Symptoms may include constipation, paralytic ileus, and muscle weakness and cramping.

3. Hyponatremia (blood level < 136 mEq/L)

Increases with age, related to kidney's inability to excrete free water.

Symptoms are vague and may include: malaise, headache, nausea, acute confusion, restlessness, lethargy, seizures and coma.

4. Hypernatremia (blood level > 145 mEq/L)

Causes of hypernatremia include: excess water loss, excessive diarrhea, burns, Addison's disease, and infusions of high-sodium solute fluids (D5W without Na replacement).

Symptoms may include: edema/weight gain, restlessness, agitation, lethargy, confusion, decreased blood pressure, tachycardia, pulmonary edema, and dry skin and mucous membranes.

Most Common Signs and Symptoms

Some of the easiest symptoms of dehydration to recognize are: fever, mental disorientation and decreased urination. Early identification of these symptoms is key to recovery.

A sudden fever is often the first sign that the older adult is suffering from dehydration. Because the older adult's body temperature is typically lower than a young person's, it is important to gauge a fever against the individual's normal temperature. The average temperature of the older adult is usually around 97 degrees F, rather than the 98.6 normal temperature of a younger person. If any other signs of illness do not accompany the fever and the signs of dehydration descried below are present, it most likely is attributed to dehydration. Because the body does not have enough fluid to cool itself, a fever often results from dehydration.

Other early signs of a dehydrated older adult is confusion and disorientation. They may seem irritable and not understand where they are or who is around them. Again, it is valuable to have a sense of the person's usual mental state so as to measure whether they are unusually disoriented. Ask simple questions that the person could normally answer and try to get a sense of whether they seem abnormally confused.

Other signs of dehydration with the older adult may include: weakened muscles, decreased urination, increased heartbeat,

sunken eyes, and loosened skin on the forehead or sternum. If any of these symptoms occur together, the person should seek medical treatment immediately.

Treatment

The most basic form of treating dehydration is to hydrate the older adult. Because they may need more nourishment than water provides, a doctor may choose a supplement, such as Pedialite for the person to drink. If the person is not drinking on their own, or cannot drink on their own, a doctor will likely order IV fluids.

Nursing interventions for most fluid and electrolyte imbalances includes:

- Determining and treating the underlying cause
- Preventing functional incontinence and mobilize patient as much as possible
- Checking labs daily
- Providing nutrition teaching and education to family
- Fluid restrictions if needed (hyponatremia)
- Administering diuretics as ordered (hyponatremia)
- Administering hypotonic IV and oral solutions slowly (hypernatremia)
- Reassuring patient and allowing for rest periods
- Monitoring for reduction of serum sodium at not greater than 2 mEq/L per hour for the first 48 hours (hypernatremia)

References

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