Syndrome of Inappropriate Antidiuretic Hormone

By: Karime Lucero
Desinee Pieros
Jessica Young

What is SIADH???

- Is an excessive amount of serum ADH, resulting in water intoxication and hyponatremia.

How does it happen???

\[ \begin{align*}
\uparrow \text{ADH secretion} & \rightarrow \uparrow \text{Permeability of the renal tubules} & \rightarrow \uparrow \text{H2O retention \\ & \& \text{ECF volume}} & \rightarrow \downarrow \text{Plasma osmolality} \\
& \rightarrow \downarrow \text{Aldosterone secretion} & \rightarrow \uparrow \text{glomerular filtration rate} & \rightarrow \uparrow \text{sodium excretion} & \rightarrow \downarrow \text{Urine output} \\
& & & \rightarrow \downarrow \text{Plasma osmolality} & \rightarrow \downarrow \text{E} & \text{volume} \\
& & & \rightarrow \downarrow \text{Hematocrit} & \rightarrow \downarrow \text{BUN} & \rightarrow \downarrow \text{Serum sodium (<135 mEq/L) HYponatremia} \\
\end{align*} \]

Pt. develops thirst, dyspnea, on exertion, vomiting, abdominal cramps, confusion, lethargy, & hyponatremia

What to look for:

- Fatigue, lethargy, anorexia, and thirst (first signs and symptoms)
- Vomiting
- Intestinal cramping
- Weight gain
- Water retention
- \( \downarrow \) Urine output
- Restlessness
- Conclusion
- HA
- Irritability
- Seizures
- Coma
- \( \downarrow \) deep tendon reflexes

Assessment

- Assess for fluid volume excess such as \( \uparrow \) B.P., crackles auscultated, distended jugular neck veins, taut skin and intake greater than output.
- Assess for HA, fatigue, anorexia, nausea, muscle aches, abdominal cramps, wt. gain w/o edema, progressive altered level of conciousness, seizures, coma, and small amts of concentrated amber-colored urine.

Diagnosis & Laboratory

- \( \uparrow \) urine osmolality (>1200 mOsm/kg H2O) and specific gravity >1.032
- \( \downarrow \) serum osmolality (<275 mOsm/kg)
- \( \downarrow \) hematocrit
- \( \downarrow \) BUN
- \( \downarrow \) Serum sodium (<135 mEq/L) HYponatremia
**Therapeutic Management**

- Limit fluid intake; monitor urine osmolality, serum electrolytes, hematocrit, BUN, sodium and serum osmolality
- Supplement sodium intake orally by hypertonic (3%) saline IV infusion

**Planning & Implementation**

- Restrict oral fluids including ice chips to 800mL/day
- Flush all enteral & gastric tubes w/ NS instead of water
- Monitor I&O’s
- Monitor serum NA, Urine osmolality and specific gravity
- Weigh daily
- Assess for changes in LOC

**Evaluation**

- Client cognition
- Client verbalizes understanding of meds, fluid restriction, sources of water and NA.
- Excess fluid is eliminated
- Lab values normalize

**Nursing DX:**

- Fluid volume excess related to retention of free water

**Risk Factors:**

- Malignant tumors
- Hodgkin’s Disease
- Central nervous system disorders
- Pulmonary disorders
- Certain drugs
- Thymomas
- Myxedema
- Psychosis
- Trauma
- Pain
- Stress