PREVALENCE OF ADIPSIA AMONG PATIENTS PRESENTING IN OUTDOOR DEPARTMENT

AUTHORS:
1. DR. SAHAR SARSHAR, AZIZ BHATTI SHAHEED TEACHING HOSPITAL, GUJRAT
2. DR. AHMED JAHANGIR MIR, AZIZ BHATTI SHAHEED TEACHING HOSPITAL, GUJRAT
3. DR. SARMAD SARSHAR, AZIZ BHATTI SHAHEED TEACHING HOSPITAL, GUJRAT

ABSTRACT:
Adipsia, also known as hypodipsia, is a symptom of inappropriately decreased or absent feelings of thirst. It involves an increased osmolality or concentration of solute in the urine, which stimulates secretion of antidiuretic hormone (ADH) from the hypothalamus to the kidneys. This cross-sectional study was conducted among the patients presenting in the outdoor department of different hospitals. Name, age, gender and history of adipsia were noted on a predefined proforma. All the data was entered and analyzed with SPSS Ver. 23.0. A total of 100 patients presenting in outdoor department were included in this study i.e., 50 males (50%) and 50 females (50%). The mean age of the patients was 34.51±5.21 years. Out of these patients, only two patients presented with history of adipsia. Further workup was advised for these patients.

Keyword: Adipsia
INTRODUCTION:

Adipsia, also known as hypodipsia, is a symptom of inappropriately decreased or absent feelings of thirst. It involves an increased osmolality or concentration of solute in the urine, which stimulates secretion of antidiuretic hormone (ADH) from the hypothalamus to the kidneys. This causes the person to retain water and ultimately become unable to feel thirst. Due to its rarity, the disorder has not been the subject of many research studies. Adipsia may be seen in conditions such as diabetes insipidus and may result in hypernatremia. It can occur as the result of abnormalities in the hypothalamus, pituitary and corpus callosum, as well as following pituitary/hypothalamic surgery. It is possible for hypothalamic dysfunction, which may result in adipsia, to be present without physical lesions in the hypothalamus, although there are only four reported cases of this. There are also some cases of patients experiencing adipsia due to a psychiatric disease. In these rare psychogenic cases, the patients have normal levels of urine osmolality as well as typical ADH activity.

Dopamine, a neurotransmitter, has been linked with feeding behaviors. In an experiment, scientists measured how much food and water mice consumed when they were born without dopamine in their systems. They found that without dopamine, the mice would starve and be dehydrated to the point of death. The scientists then injected the mice without dopamine with its precursor, L-DOPA, and the mice started eating again. But, even though the mice were born without dopamine in their systems, they still had the capacity to control their feeding and drinking behaviors, suggesting that dopamine does not play a role in developing those neural circuits. Instead, dopamine is more closely related to the drive for hunger and thirst. Although the lack of dopamine resulted in adipsia in these rats, low levels of dopamine do not necessarily cause adipsia (1-3).
MATERIAL AND METHODS:
This cross-sectional study was conducted among the patients presenting in the outdoor department of different hospitals. Name, age, gender and history of adipsia were noted on a predefined proforma. All the data was entered and analyzed with SPSS Ver. 23.0. The quantitative variables were presented as mean and standard deviation. The qualitative variables were presented as frequency and percentages.

RESULTS:
A total of 100 patients presenting in outdoor department were included in this study i.e., 50 males (50%) and 50 females (50%). The mean age of the patients was 34.51±5.21 years. Out of these patients, only two patients presented with history of adipsia. Further workup was advised for these patients.

DISCUSSION:
Diagnosing adipsia can be difficult as there is no set of concrete physical signs that are adipsia specific. Changes in the brain that are indicative of adipsia include those of hyperpnea, muscle weakness, insomnia, lethargy, and convulsions (although uncommon except in extreme cases of incredibly rapid rehydration). Patients with a history of brain tumors, or congenital malformations, may have hypothalamic lesions, which could be indicative of adipsia. Some adults with Type A adipsia are anorexic in addition to the other symptoms.

Initial testing for adipsia involves electrolyte, blood urea nitrogen (BUN) and creatinine levels, serum and urine osmolality, blood hormone levels, like vasopressin (AVP). In patients who have defects in thirst regulation and vasopresin secretion, serum vassopresin levels are low or absent. Measurements of urine electrolytes and osmolality are critical in determining the central, rather than renal, nature of the defect in water homeostasis. In adipsia, the fractional excretion of sodium is less than 1%, unless a coexisting defect in AVP secretion is present. In salt intoxication, the urine sodium
concentrations are very high and fractional excretion of sodium is greater than 1%. Initial test results may be suggestive of diabetes insipidus. The circulating AVP levels tend to be high, which indicate an appropriate response of the pituitary to hyperosmolality. Patients may have mild stable elevations of serum sodium concentrations, along with elevations in both BUN and creatinine levels and in the BUN/creatinine ratio (4-6)

REFERENCES: