Catatonia in the Setting of Hyponatremia

To the Editor: Hyponatremia can manifest in a wide array of clinical symptoms, including those of catatonia. The correction of hyponatremia, however, does not necessarily resolve the catatonic symptoms. We present a case of catatonia in the setting of hyponatremia in a middle-aged woman who remained catatonic after her sodium levels were normalized. Her catatonia improved only after she was treated with lorazepam.

Case report. Ms A is a 43-year-old woman with schizoaffective disorder who presented to the emergency department with altered mental status and hyponatremia. Her husband noted that for the past 2 days, she was nonverbal and often staring into space and not paying attention to her surroundings. In the emergency department, Ms A stared blankly at the ceiling and did not answer questions. Her husband reported that she also had increased urinary frequency for several weeks. Ms A's past medical history is significant for psychogenic polydipsia, sleep apnea, diabetes mellitus type II, hypertension, paroxysmal atrial fibrillation, hyperlipidemia, asthma, and seizures. At admission, her sodium level was 127 mmol/L and her urine drug screen was negative. A psychiatry consultation was requested due to her altered mental status and history of psychiatric diagnoses. Prior to the consultation, Ms A was put on nothing by mouth status, and her sodium was replenished to a normal level of 136 mmol/L. During the psychiatric examination, Ms A was awake but noncommunicative with a flat affect; she did not make meaningful eye contact. She laughed spontaneously, randomly raised her left arm in the air, and had rapid flickering of the eyelids occasionally throughout the examination. She also exhibited waxy flexibility of her upper extremity. An electroencephalograph (EEG) was ordered to rule out seizure activity, and the results were negative. A diagnosis of catatonia (*ICD-10* criteria) was made, and intramuscular lorazepam 2 mg was administered, as well as a scheduled lorazepam 1-mg dose by mouth twice daily. The catatonia improved after the intramuscular dose of lorazepam 2 mg was administered, and Ms A returned to her regular baseline. She was discharged on lorazepam 1 mg twice daily, aripiprazole 10 mg at bedtime, oxcarbazepine 150 mg twice daily, and fluid restriction.

Ms A presented with hyponatremia secondary to psychogenic polydipsia and withdrawn catatonia exhibited by stupor, mutism, posturing, stereotypy, staring, and withdrawal.[1] Appropriately, EEG was performed, and the results were normal.[2] These symptoms did not improve with correction of the hyponatremia but only improved with administration of intramuscular lorazepam, a mainstay of catatonia treatment.[3] One case series[4] suggests that psychogenic polydipsia is often seen with catatonia and is an example of stereotypy and therefore may be a sign of catatonia. The same case series[4] also suggests that hyponatremia in a psychotic patient may be a physiologic sign of catatonia and may be due to abnormalities in vasopressin transmission and secretion. Other studies[5,6] describe catatonic patients in whom hyponatremia was corrected, but the catatonia did not improve until treatment with benzodiazepines or electroconvulsive therapy. Although hyponatremia and catatonia commonly copresent and may have a common origin, the catatonic symptoms appear unaffected by corrected sodium levels.[4] Anglin et al[7] conducted a literature review looking at neuropsychiatric symptoms in patients with Addison's disease and found catatonia to be a rare but reported complication of the disease. This finding adds to the argument that hyponatremia can cause catatonia in susceptible patients.

This case highlights the importance of assessing patients for excessive fluid intake. Also, our patient had no history of catatonia prior to hyponatremia. Further research is required to determine causation and best treatment, but with the available literature, catatonia should be considered in the differential diagnosis when dealing with hyponatremic patients.

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Anna Krueger, MD
Shady S. Shebak, MD
ssshebak@carilionclinic.org
Bush Kavuru, MD

Author affiliations: Department of Psychiatry and Behavioral Medicine, Carilion Clinic, Virginia Tech Carilion School of Medicine, Roanoke.

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