

## Low Dose of Citalopram-Induced Hyponatremia in an 88 Year Old Male

RoopaSethi MD<sup>1\*</sup>, Joseph W. Iskandar DO<sup>1</sup>, Benjamin Griffeth MD<sup>2</sup> and Anita Kablinger MD<sup>3</sup>

<sup>1</sup>Resident in psychiatry, Carilion Clinic - Virginia Tech Carilion School of Medicine Psychiatry Residency Program, Roanoke, Virginia

<sup>2</sup>Associate Professor of Psychiatry, Edward Via College of Osteopathic Medicine, Blacksburg, Virginia

<sup>3</sup>Professor of Psychiatry, Carilion Clinic - Virginia Tech Carilion School of Medicine, Roanoke, Virginia

### Abstract

We present a case of low dose of citalopram-induced hyponatremia in an 88 year old male which it warranted ER visit. However, the use of SSRI by primary care provider and psychiatrist has been rising. We are always in need to remind ourselves that they are not benign medication even at low dose.

**Keywords:** Citalopram; Selective serotonin reuptake inhibitor; Hyponatremia; Syndrome of Inappropriate secretion of Antidiuretic Hormone (SIADH)

### Key Points

- Citalopram 10 mg could induce hyponatremia in an 88 year Old Male.
- If practitioners recognize this association, expensive investigations and extensive hospital stays may be prevented.

A retrospective review of published literature disclosed few reports about Citalopram causing hyponatremia. However, we present a case of low dose of citalopram-induced hyponatremia in an 88 year old male which it warranted emergency department visit.

### Case Report

An 88-year-old Caucasian Male with a past psychiatric history of major depressive disorder (MDD) and anxiety disorder presented to the mental health clinic, complaining of worsening depression. Past medical and surgical histories were unremarkable except for of Diabetes mellitus. Patient was on BuSpirone 20 mg three times a day and metformin 250 mg twice a day.

Patient was prescribed citalopram 10 mg daily to target the depression symptoms. Sodium (Na) level was 136 mmol/l before citalopram was started. About 10 days later, patient presented to the emergency department due to severe headache, nausea, malaise, lethargy and dizziness. However, he denied any vomiting and diarrhea. Na level after it was corrected to glucose was 127 mmol/l and glucose of 259 mg/dl. Patient's plasma osmolality was 270 mos/kg and urine osmolality was 320 mos/kg. Renin level was 0.30 ng/mL/hr and aldosterone was 6.6 ng/dL. A case of SIADH was recognized. Patient was not on any diuretic therapy. He was not having any ascites or any signs of heart failure. TSH, BUN/creatinine and serum potassium and bicarbonate were unremarkable. Images including computed tomography (CT) of the head and Chest X-ray were unremarkable. The citalopram was discontinued then the patient's Na level was 132 and 140 mmol/l on day 2 and 15 respectively. Moreover, patient reported that his headache, malaise, lethargy and dizziness were resolved on 3 and 6 month follows up.

### Discussion

It has been reported that selective serotonin reuptake inhibitor could induce hyponatremia in the elderly population [1]. Moreover Citalopram has been associated with syndrome of inappropriate secretion of antidiuretic hormone (SIADH) [2]. However, our case is demonstrating that be associated citalopram-induced hyponatremia

could be the result from a low dose (10 mg) especially in elderly population due to the predispose factor to side effect. Citalopram 20 mg induced seizure in a 45 years old otherwise healthy female [3]. However, the use of SSRI by primary care provider and psychiatrist has been rising. We are always in need to remind ourselves that they are not benign medications even at low dose.

Possible differentials in this case would be heart failure, liver failure, adrenal insufficiency, advanced renal failure, hypothyroidism, tumors (e.g. small cell CA) and stroke and pneumonias (viral, bacterial and tuberculous) which they were ruled out.

### Conclusion

Citalopram should be initiated cautiously in elderly population as it could lead to clinical hyponatremia. If hyponatremia develops, citalopram should discontinued and another alternative should be considered. Basic metabolic panel before and after starting citalopram or any SSRI could be helpful to avoid developing hyponatremia. If practitioners recognize this association, expensive investigations and extensive hospital stays may be prevented.

### References

1. Jacob S, Spinler SA (2006) Hyponatremia associated with selective serotonin reuptake inhibitors in older adults. *Ann Pharmacother* 40: 1618-1622.
2. Miehle K, Paschke R, Koch CA (2005) Citalopram therapy as a risk factor for symptomatic hyponatremia caused by the syndrome of inappropriate secretion of antidiuretic hormone (SIADH): a case report. *Pharmacopsychiatry* 38: 181-182.
3. Iskandar JW, Schmidley J, Sharma T (2011) Citalopram-Induced Seizures in a Healthy Adult Taking FDA Approved Dose. *Prim Care Companion CNS Disord* 13: e1.

**\*Corresponding author:** RoopaSethi MD, Carilion Clinic - Virginia Tech Carilion School of Medicine, 2017 S. Jefferson St, Roanoke, VA 24014. Tel: (540) 397-5640; Fax: (540) 982-3442; E-mail: [Rxsethi@carilionclinic.org](mailto:Rxsethi@carilionclinic.org)

**Received** November 18, 2011; **Accepted** December 18, 2011; **Published** December 20, 2011

**Citation:** RoopaSethi MD, Joseph W. Iskandar DO, Benjamin Griffeth MD Anita Kablinger MD (2011) Low Dose of Citalopram-Induced Hyponatremia in an 88 Year Old Male. *J Depress Anxiety* 1:106. doi:10.4172/2167-1044.1000106

**Copyright:** © 2011 RoopaSethi MD, et al. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.