

## Duloxetine induced hyponatremia

Sir,

A 38-year-old female presented with malaise and lethargy for 2 days. Her past medical history was unremarkable except for hypertension for 1-year for which she was on amlodipine. She was started on duloxetine 30 mg twice a day for generalized anxiety disorder 4 days back. On examination, she was hemodynamically stable. There was no edema. Her neurological examination was normal.

Her laboratory reports showed blood urea nitrogen 15 mg/dl, serum creatinine 0.8 mg/dl, serum sodium 117 mEq/L, serum potassium 4.3 mEq/L, serum bicarbonate 26 mEq/L, serum osmolarity 238 mosm/kg, urine sodium 38 mEq/L, urine potassium 12 mEq/L and urine osmolarity 260 mosm/kg. Her liver and thyroid function tests were normal. She denied any history of loose stools, vomiting or diuretic use. She was managed with fluid restriction and serial monitoring of serum sodium levels. Duloxetine was stopped. Her serum sodium gradually improved to 138 mEq/L over next 5 days. She was restarted on duloxetine again 2 weeks later. Serum sodium done 2 days after starting the drug was 124 mEq/L. Duloxetine was stopped, and her sodium levels improved to normal.

Duloxetine is a serotonin/norepinephrine reuptake inhibitor, used for treatment of major depressive disorder, diabetic neuropathy, fibromyalgia, generalized anxiety disorder and chronic musculoskeletal pain. Duloxetine induced hyponatremia is relatively rare and is commonly seen in patients with depression and neuropathic pain.<sup>[1-5]</sup> Old age and female sex seem to be a particular risk factors.<sup>[2-4]</sup> Mechanism of duloxetine induced SIADH is not clear. Animal experiments show that both norepinephrine and serotonin stimulate ADH secretion.

There were some distinctive features in our patient. First, she was middle-aged female. Most cases of duloxetine induced hyponatremia are described in elderly females. Second, hyponatremia following duloxetine use for generalized anxiety disorder has never been described.

To summarize, we describe a case of SIADH in a middle aged female caused by duloxetine. SIADH was seen within a week after starting the drug and it recurred on restarting the drug. One has to look for hyponatremia in patients who are on anti-depressants and present with nonspecific symptoms.

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