

Sertraline-induced hyponatremia in the elderly

The hyponatremic state affects approximately 3%–5% of in-hospital patients.¹ Among the various etiologies of this state is the syndrome of inappropriate antidiuretic hormone (SIADH), which is characterized by a euvolumic state with low plasma osmolality and an inappropriately raised urinary osmolality. Multiple conditions are implicated in the genesis of this osmoregulatory disorder.² Among them, drugs of various classes have been found to cause SIADH. The selective serotonin reuptake inhibitors (SSRIs), which are frequently used to treat depression, are included in this group.³

Case report

We report a case of a 78-year-old hypertensive male, well controlled on telmisartan 40 mg and amlodipine 5 mg. He presented with gradual onset drowsiness and anorexia for the previous 3 days. There was no history of fever, headache, seizures or focal neurological deficit, and on examination, his BP was 150/80 mm Hg, his pulse rate was 88 beats/min and was regular with occasional ventricular ectopics, his Glasgow coma scale score was 9 and he was euvolumic. Baseline evaluation revealed serum sodium of 100 mmol/L, serum potassium of 3.8 mmol/L, plasma

osmolality was 265 mosm/L and urinary sodium was > 40 mmol/L. Renal and thyroid functions were normal. A diagnosis of SIADH was considered. The causative agent was found to be the SSRI, sertraline. The patient had been taking 50 mg daily for 7 days because of depression. He was managed by fluid restriction and 3% normal saline and the sertraline was withdrawn. The patient began showing improvement after 48 hours and was discharged on the fifth day with a serum sodium of 135 mmol/L.

Discussion

Depression is commonly seen in clinical practice, especially in elderly patients. SSRIs are the preferred treatment choice because of their better tolerability and safety; however, serious adverse effects have been reported. One of them, as described in the present case, is severe hyponatraemia. A possible explanation for SSRI-induced SIADH is the stimulatory effect of serotonin on ADH secretion via the 5HT₁ and 5HT₂ receptors.⁴

In our case, the occurrence of hyponatremia 7 days following the initiation of sertraline, and the reversal of this biochemical abnormality and improvement in clinical profile after discontinuation of the drug, supports this causative link. Hyponatremia occurring as an adverse effect of an SSRI is

under-diagnosed because most of the cases are asymptomatic and hence go unnoticed.

Conclusion

Sertraline-induced hyponatraemia, although relatively uncommon, is an important clinical problem with a serious outcome. Its use in clinical practice demands extra vigilance regarding dyselec-trolytemia, especially in elderly patients.

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