

HYPONATREMIA AND ANTIDEPRESSANTS: ARE THEY WORTH THEIR SALT? A CLASS-PER-CLASS REVIEW OF THE LITERATURE

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Introduction: Hyponatremia due to antidepressant-induced SIADH can cause significant morbidity and serious complications. It is commonly associated with SSRIs, but the frequency and class-specificity are unclear.

Objectives: To determine the relationship between hyponatremia and antidepressants, defining incidence and odds ratios for antidepressant classes, along with patient risk factors.

Methods: A review of the literature was performed in Web of Science and Pubmed until April 2012, using combinations of search strings "antidepressants" and antidepressant class and generic drug names with "hyponatr(a)emia", "SIADH" or "inappropriate antidiuretic hormone secretion".

Results: 19 effect studies and over 50 case reports were considered, the majority concerning SSRIs. Variation in study design, population and cut-off values caused divergence of hyponatremia incidences of 0.06-40% for SSRIs and 0.08-70% for venlafaxine. Incidence numbers for mirtazapine and TCAs were tenfold lower. Odds ratios for SSRIs (1.5 -4.0) were consistently higher than for TCAs (1.1-1.9). The risk associated with MAO-inhibitors, reboxetine and bupropion could not be established due to insufficient information. Patient risk factors included older age (OR 6.3) and concomitant use of (thiazide) diuretics (OR 11.2-13.5).

Conclusion: Hyponatremia is an underdiagnosed and potentially dangerous side-effect of antidepressants and this risk is not exclusive to SSRIs. Current evidence suggests a relatively high risk for hyponatremia with the use of SSRIs or venlafaxine, especially combined with patient risk factors, in which cases clinicians should actively screen for this complication. Mirtazapine and TCAs entail a moderate risk and can be considered as alternative treatment for patients with increased risk or history of hyponatremia.