

Antidepressant Use and Risk of Out-of-Hospital Cardiac Arrest: A Nationwide Case-Time-Control Study.

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Abstract

Treatment with some types of antidepressants has been associated with sudden cardiac death. It is unknown whether the increased risk is due to a class effect or related to specific antidepressants within drug classes. All patients in Denmark with an out-of-hospital cardiac arrest (OHCA) were identified (2001-2007). Association between treatment with specific antidepressants and OHCA was examined by conditional logistic regression in case-time-control models. We identified 19,110 patients with an OHCA; 2,913 (15.2%) were receiving antidepressant treatment at the time of OHCA, with citalopram being the most frequently used type of antidepressant (50.8%). Tricyclic antidepressants (TCAs; odds ratio (OR) = 1.69, confidence interval (CI): 1.14-2.50) and selective serotonin reuptake inhibitors (SSRIs; OR = 1.21, CI: 1.00-1.47) were both associated with comparable increases in risk of OHCA, whereas no association was found for serotonin-norepinephrine reuptake inhibitors/ noradrenergic and specific serotonergic antidepressants (SNRIs/NaSSAs; OR = 1.06, CI: 0.81-1.39). The increased risks were primarily driven by: citalopram (OR = 1.29, CI: 1.02-1.63) and nortriptyline (OR = 5.14, CI: 2.17-12.2). An association between cardiac arrest and antidepressant use could be documented in both the SSRI and TCA classes of drugs.

Commentary:

As more and more patients who come for sedation are on psychotropic drugs, this article is an extremely important paper for sedation practitioners. It takes a look at these drugs relative to Out-of-Hospital- Cardiac-Arrest (OHCA). These drugs include the:

- Sedative-hypnoticse.g.thebenzodiazepines
- Antidepressants.....TCA's and SSRI's were both associated with increased risk of OHCA, while it is however interesting to note that the selective serotonin and noradrenaline re-uptake inhibitors e.g. venlafaxine may be safer!
- Antimanicse.g.lithium • Anticonvulsants • Antipsychotics



SEDATION SOLUTIONS

The question is how do we handle the patients coming for sedation who are taking the above drugs, and which drugs should we use, or not use. It is necessary to be careful with this group of patients. Although it is safer to get the patient to stop these drugs 2 – 3 days before sedation, this is not always practical. One drug that I do not give, and I like this one very much, is tramadol an opioid.....one death has been reported with use of tramadol in a patient on mirtazapine (remeron®). What about ketamine.....more on this later!