



Cycling To Cessate

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I. INTRODUCTION:

Cyclic antidepressants are the first generation of drugs used to treat depression. They have the highest ratio of deaths to exposures for antidepressants. Due to their narrow therapeutic index, toxicity can occur at therapeutic doses. Amitriptyline, tertiary amine is the most commonly used antidepressant drug.

II. CASE REPORT:

METHOD: A 34 year old woman who presented to the VIMS&RC ER with H/O consumption of Tab. Amitriptyline 75mg, 8 in number (total dose of 600mg), 1 hour prior to presentation, following which she had 2 episodes of vomiting. No known co-morbidities.

ON EXAMINATION: Patient was hemodynamically stable with ECG suggestive of sinus tachycardia, prolonged PR interval and right axis deviation.

WORK UP: Patient was resuscitated and stabilised in ER. Patient had sustained cardiotoxicity due to consumption of cyclic antidepressants and was treated with INJ. Sodium bicarbonate 1- 2 mEq/kg

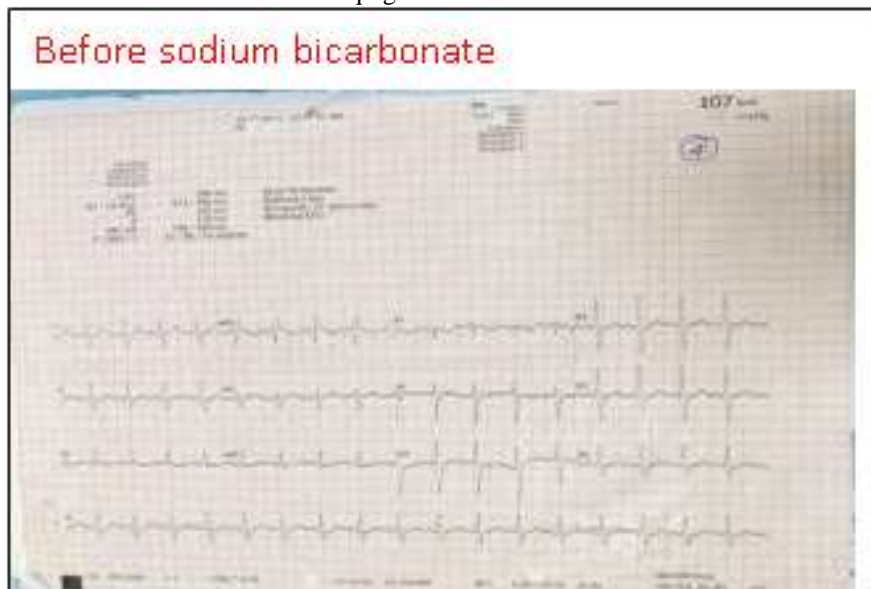
IV bolus, following which patient condition improved.

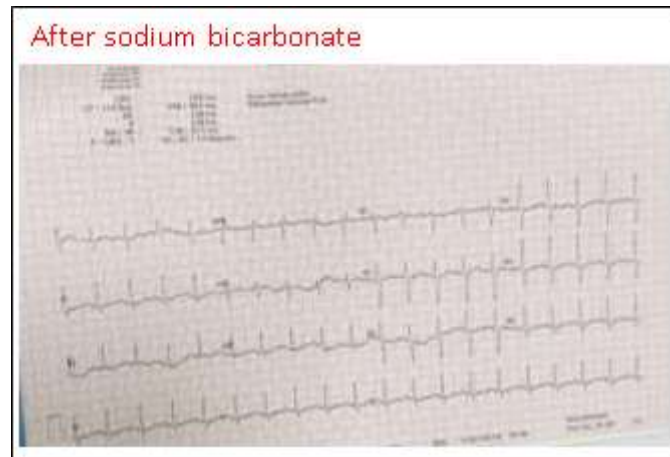
III. DISCUSSION:

Cyclic antidepressants induced cardio toxicity, is the most important factor contributing to patient mortality. They act by blocking the reuptake of serotonin and also reuptake of norepinephrine. Cyclic antidepressants also have anticholinergic side effects, blurred vision. Cardiac conduction abnormalities occur by inhibiting fast sodium channels in myocardium and hispurkinje system. TCA induced cardiac toxicity is treated with INJ. Sodium bicarbonate 1-2 mEq/kg IV bolus, repeated doses can be given until patient improvement is noted or until blood pH is between 7.50 and 7.55 and GI decontamination with activated charcoal at 1gm/kg PO, if presented within 1 hour ingestion.

IV. CONCLUSION:

TCA induced cardiac toxicity can be prevented, if treated timely with supportive therapy and appropriate management, using sodium bicarbonate and not antiarrhythmic drugs.





REFERENCES:

- [1]. Tintinalli's Emergency Medicine, A Comprehensive Study Guide, 9 th edition.
- [2]. Clark S, Catt JW, Caffery T. Rapid diagnosis and treatment of severe tricyclic antidepressant toxicity. BMJ Case Rep. 2015 Oct 14;2015:bcr2015211428. doi: 10.1136/bcr-2015-211428. PMID: 26468220; PMCID: PMC4612524.