**The Quintessence of Tricyclic Antidepressant (TCA) Severe Toxicity**

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| Introduction: Overdose of antidepressants is common case encountered in the emergency department. Among antidepressants, tricyclic antidepressant (TCA) is not a popular choice among psychiatrist in their practice nowadays. TCA is an atypical antidepressant that could cause seizures in doses above 225mg/kg. It could be fatal in severe toxicity cases, when the important signs and desirable management strategies are not identified and practiced.Case description: A 25-year-old lady, with underlying bipolar disorder, presented with unresponsiveness following multiple episodes of fitting. She developed multiple episodes of fitting in the emergency department, not aborted with multiple doses of intravenous diazepam. Cardiac monitor showed sinus tachycardia with wide QRS complex, which raised suspicion of TCA toxicity even though the history of ingestion was not obtained at that time, thus intravenous phenytoin was not administered. She was intubated and sedated for cerebral protection in view of status epilepticus. Subsequently, the patient’s partner displayed the medications found beside the patient, including tablet dothiepin 75mg, tablet mirtazapine 30mg, and tablet olanzapine 10mg. The patient was treated for severe TCA toxicity, although the exact dose was not known. She was ventilated with high minute ventilation setting and continuously loaded with intravenous sodium bicarbonate prior to her ICU admission. The patient eventually succumbed due to progressive deterioration 3 days later.Discussion: For patients presenting with ongoing seizure or status epilepticus, the cardiac monitor should be placed as it is the only way to recognise toxicological causes of seizure especially when the history of ingestion is unknown. The cardiac rhythm and electrocardiograph (ECG) findings of TCA toxicity include sinus tachycardia with wide QRS complex. Patient with TCA toxicity should not be loaded with intravenous phenytoin due to its sodium channel blocking properties, which would have deteriorated the patient’s condition further. The treatment strategy to TCA toxicity are primarily hyperventilation and sodium bicarbonate administration with target of pH 7.50-7.55 and narrow QRS complex.Conclusion: When addressing a fitting patient, the algorithm ‘ABCDE’ should be applied, where ‘E’ stands for ECG/cardiac monitor, as this will help recognising toxicological etiologies of seizure and prevent administration of phenytoin. Keywords: TCA toxicity, ECG, Cardiac monitor |