ED QUICK QUIZ

WHAT IS THE DIAGNOSIS?

BACKGROUND

An 18 yr old student with a PMH of schizophrenia is brought in by ambulance after taking an overdose of venlafaxine and tramadol in large numbers in an attempt to end his life. This was 3 hours ago. DHx- aripiprazole.

O/E
Sats 98% on 15L oxygen tolerating oropharyngeal airway.
RR 26
BP 120/80
HR 130
GCS 6 (E=1 none, M= 4 withdraws, V= 1 none)
BM 4.5
Temp 39

QUESTIONS

1. What is your initial management?
2. With these observations, what condition are you suspecting?
3. What are the principles of management of this?

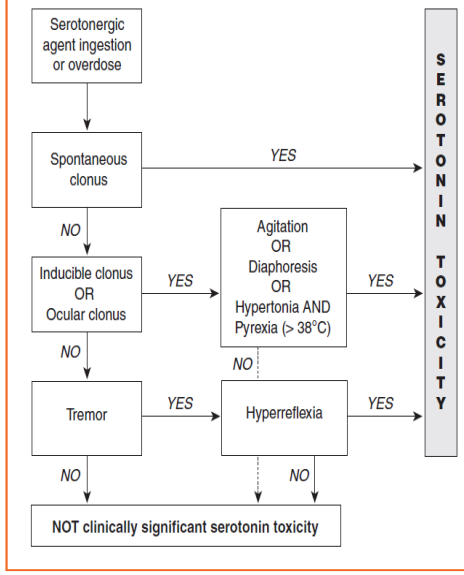
CMP 6, HMP 5, CAP 14,
CAP 27, CAP 30, HAP 14, HAP 25 Rebecca Robson 25/04/18

ANSWERS & DISCUSSION

1. Airway is patent with oropharyngeal airway and your registrar prepares for intubation while you conduct an A-E assessment. The patient has reduced conscious level and is requiring airway adjuncts, therefore requires intubation. Blood pressure is satisfactory but the patient has tachycardia, so you request a 12 lead ECG knowing that venlafaxine can prolong QT interval. This is satisfactory on your review and the patient is on cardiac monitoring. You note the patient has increased tone, clonus and hyperpyrexia. You obtain IV access and send off bloods including CK, paracetamol and salicylate and process a VBG. Clothes are removed to underwear and you commence cooled IVF and consult toxbase for specific management.

2. You suspect serotonin syndrome, which is characterised by a triad of clinical features: neuromuscular excitation (clonus, hypertonia, raised creatine kinase), autonomic effects (hyperpyrexia, tcahycardia) and altered mental status (agitation, coma). Serotonin toxicity can occur from exposure to any medication that increases the intrasynaptic serotonin concentration in the central nervous system. This includes antidepressants (SSRIs and MOAIs) and also opioid analgesics (tramadol in this patients case), some drugs of abuse and many others. Increased tone, hyperreflexia and clonus help define the diagnosis as other drugs cause similar findings for example neuroleptic malignant syndrome but this is associated with bradykinesia and leadpipe rigidity.

4 Flow diagram based on the Hunter Serotonin Toxicity Criteria[2]



This diagram on diagnosis is included in our local guideline and is from ref 2.

3. Treatment is supportive with focus on controlling hyperthermia and muscle rigidity. Serotonin antagonists are also used such as cyproheptadine. We have a trust guideline on staffnet with details on management, which it categorises symptoms into mild, moderate or severe and details treatments. Seretonergic agents must be ceased during symptomatic period and reviewed prior to restarting.

References

1. Toxbase search venlafaxine 20/04/18
2. Isbister GK, Buckley NA, Whyte IM. Serotonin toxicity: a practical approach to diagnosis and treatment . Med J Aust 2007; 187:361-365
3. BMJ Best Practise Serotonin Syndrome accessed 20/4/18