

TOXICOLOGY

WHY IS MY PATIENT SO HOT?

	Serotonin Syndrome	Anticholinergic Syndrome	Neuroleptic Malignant Syndrome	Malignant Hyperthermia
Causative medication	SSRI/ SNRI MAOi TCA MDMA	Antihistamines, Antipsychotics, Anti- Parkinson's, TCA Bella donna	Recently started anti psychotics Stopping anti parkinson's drugs abruptly	Inhaled Anaesthetics Depolarising muscle relaxants e.g. Suxamethonium
Mechanism	Serotonin excess	Acetylcholine blockade	Dopamine blockade	Massive calcium release→ increased muscle metabolism and damage
Onset	<12 hours	<12 hours	24- 72 hours	30 mins- 24 hours
Vitals	Temp 41°C or more Hypertension Tachycardia	Temp <38°C Hypertension Tachycardia	Temp <41°C Hypertension (can be labile) Tachycardia	Can be greater than 42°C Hypertension Tachycardia
Pupils	Large	Large	Normal	Normal
Mucosa	Increased secretions	Dry	Increased secretions	Normal
Skin	Sweaty	Flushed and dry	Flushed and sweaty	Sweaty
Bowels	Increased sounds +/- diarrhoea	Reduced or absent	Normal	Decreasing
Tone	Greater in lower limbs	Normal	Rigidity of all muscles	Extreme rigidity
Reflexes	Clonus, Brisk	Normal	Sluggish	Sluggish
Mental status	Hallucinations Agitated/ Coma	Confusion	Stuporous, quiet, coma	Agitation
Other features	Tremor Seizures Rhabdomyolysis	Urinary retention	Dyskinesia Rhabdomyolysis	Increased oxygen demand Increased CO2 production Rhabdomyolysis
Treatment For all causes: Stop the causative agent Aggressively Cool & Hydrate Support autonomic instability Consider RSI if hyperthermic	Consider Cyproheptadine	Consider Physostigmine	Dantrolene Consider Bromocriptine or Amantadine	Dantrolene