Antipsychotics - Typical

Overview

Include the phenothiazines: chlorpromazine, fluphenazine, thioridazine (discontinued in Aus) and the butyrophenones: haloperidol & droperidol. These neuroleptics cause CNS depression, orthostatic hypoBP, anticholinergic effects in OD. Thioridizine was the most cardiotoxic.

Toxic mechanism

Main action is central D_2 antagonism, but they have unwanted effects at other receptors (H_1, GABA-A, M_1, α_1, α_2, 5HT). They also have Na & K channel-blocking effects.

Toxicokinetics

Rapidly abs but more erratically in OD. 1st pass metabolism.- Cyt P450. Many have active metabolites and long elimination half-lives.

Clinical features

Intoxication: within 2-4hrs.
CNS depression: ↓↑LOC, coma from large OD. Seizures & EPE uncommon.
Orthostatic hypotension.
Anticholinergic effects: agitated delirium, urinary retention, ↑HR, mydriasis, etc
Cardiotoxicity: ↑QRS, ↑QTc, Torsade & other arrhythmias (mainly thioridazine)
NB: Neuroleptic Malignant Syndrome occurs rarely in OD.

Investigations

Screening: BSL, ECG, paracetamol
Other: Serial ECGs & cardiac monitoring for 6hrs, longer for thioridazine

Risk assessment

Only significant risk of cardiac toxicity with thioridazine, otherwise relatively low risk.
Thioridazine coma & cardiotoxicity likely with OD >5g
Torsade risk if QTc>500ms
Chlorpromazine coma likely with OD >5g

Management

Resus: ABCs
Supportive care:

- Fluid management for BP
- Treat NaBlockade with **bicarbonate**.
- Treat TdP by correcting hypoxia, hypoK^+ and give **$MgSO_4$** or, if HR<100, give **isoprenaline** 1-10µg/min IV infusion or overdrive pace to 100-120bpm.
- Manage delirium with non-pharmacological & BDZ rather than **physostigmine**
- Treat seizures with BDZ
- Treat acute dystonic reactions (EPE) with **benztropine** ± BDZ

Decontamination: Activated charcoal indicated if intubated.

Disposition

If remain asymptomatic at 6hr post OD with normal ECG can be d/c.