Summary
Cardiac Side Effects of Psychototropic Drugs

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Effects of Antidepressants on Blood Pressure, Heart Rate and Other Cardiovascular Parameters

- TCAs can cause tachycardia and hypotension.
- MAOIs may cause hypertensive crisis when used in combination with certain foods or other medications.
- Some SSRIs may increase bleeding risk when used with Coumadin.

QTc Prolongation and Antidepressants: Tricyclics and SSRIs

- TCAs primarily pose a threat in patients with pre-existing heart disease.
- SSRIs have been extensively studied in cardiac populations and their safety well established.

QTc Prolongation with Citalopram: Evidence and Controversy

- There is evidence that citalopram causes more QT prolongation than other SSRIs. It is associated with QT prolongation on the order of 10 ms to 20 ms.
- Citalopram does not appear to be associated with higher rates of torsade or other ventricular arrhythmias.
- Reflexively lowering the dose of citalopram due to concerns about QT prolongation may lead to adverse psychiatric outcomes.

Video 4: QTc Prolongation and Escitalopram: A Safer Antidepressant

- Escitalopram may carry some risk of mild QT prolongation, but it’s very unlikely to be clinically significant.
- Escitalopram was not associated with greater mortality in the Tennessee Medicaid cohort study, which suggests that it is unlikely to have significant effects on arrhythmias or cardiac death.

QTc Prolongation: What About Other Antidepressants?

- There is not strong evidence for clinically significant QT prolongation with other antidepressants.
- Bupropion may cause tachycardia in overdose.

How Should I Use Antidepressants in Patients at Risk for QTc Prolongation?

- The overall magnitude of QT prolongation with SSRIs is small.
- Sertraline may be the best first-line antidepressant for patients at risk for QT prolongation.
- Higher doses of citalopram may be appropriate in some patients with careful selection and judicious monitoring.

Cardiac Effects of Antipsychotics: Focus on Clozapine-Induced Myocarditis and Cardiomyopathy

- Clozapine is commonly associated with tachycardia and orthostatic hypotension.
- Clozapine-induced myocarditis tends to happen early in the course of treatment.
• Clozapine-induced cardiomyopathy tends to happen in the first year and can be challenging to detect.

Cardiac Effects of Antipsychotics: QTc Prolongation

• Thioridazine, ziprasidone, and iloperidone are the antipsychotic agents most associated with QT prolongation.
• Intravenous haloperidol has been associated with QT prolongation and torsades in reports, though this appears to be a very rare occurrence.
• Aripiprazole and lurasidone appear to have the least association with QT prolongation.

Cardiac Effects of Antipsychotics: Sudden Cardiac Death

• There is an association of antipsychotic medications with sudden cardiac death, the mechanism remains elusive and this association may not be correlated with the risk of QT prolongation.

Cardiac Adverse Effects of Mood Stabilizers and Other Medications

• Lithium has been associated with sick sinus syndrome and AV block.
• Benzodiazepines have minimal cardiovascular effects and may be cardioprotective.

Risk of QTc Prolongation with Mood Stabilizers and Other Medications

• Antiepileptic drugs do not cause significant QT prolongation.
• Benzodiazepines and stimulants are not associated with QT prolongation.
• Methadone is strongly linked to QT prolongation and torsades.

Cardiovascular Effects of ADHD Drugs

• Stimulants tend to have cardiac effects that are not clinically significant.
• The FDA continues to recommend against using stimulants in patients with serious cardiac problems.