

Aripiprazole cardiosafety: Is it overestimated?

Aripiprazole is a third-generation atypical (novel) antipsychotic, dihydroquinolinone, famously known as dopamine stabilizer, uniquely D2/D3 partial agonist, and 5HT1A agonist. It is a Food and Drug Administration-approved drug for schizophrenia, bipolar mood disorder, augmentation in unipolar depression, irritability in autism, and Tourette syndrome in pediatric age group. It is lauded for being cardiometabolic-friendly,^[1] in stark contradistinction to most atypical antipsychotics currently on the market. Nelson and Leung^[2] recently reported unusual QTc prolongation associated with aripiprazole use. Similarly, Hategan and Bourgeois^[3] reported aripiprazole-associated QTc prolongation in a geriatric patient. Lam,^[4] too, noted QTc prolongation associated with aripiprazole. Suzuki *et al.*^[5] reported a dose-dependent of QTc interval at 30 mg of aripiprazole. Egger *et al.*^[6] reported a case of dose-dependent aripiprazole-induced conduction disturbance. Torgovnick *et al.*^[7] reported on aripiprazole-induced orthostatic hypotension and supraventricular tachyarrhythmia. Shao *et al.*^[8] reported a case of ventricular trigeminy induced by overdose aripiprazole.

Here, I report on three cases where aripiprazole was associated with cardiac adversities.

Case 1: A 15-year-old female, bipolar I disorder, overweight, baseline electrocardiogram (ECG) and metabolic (Met) screen unrevealing, no history of cardiac comorbidities, was put to 45 mg aripiprazole monotherapy. She developed asymptomatic first-degree AV block that reversed on decreasing dose back to 30 mg/day within days. With rechallenging at 45 mg dosing, PR interval lengthened again at 22 ms. Naranjo Adverse Drug Reaction Probability Scale scored 7.

Case 2: A 48-year-old female, perimenopausal, schizoaffective disorder, bipolar subtype, baseline ECG and Met screen with negative yield, no vascular risks, no history of cardiac comorbidities, was maintained on risperidone 4 mg/day. She developed asymptomatic hyperprolactinemia. Aripiprazole 3 mg was added to mitigate hyperprolactinemia. Follow-up ECG read left bundle branch block. Aripiprazole was discontinued. ECG morphed into tachy-dependent anteroseptal subepicardial ischemia, and then normalized over a course of 2 weeks. Naranjo scale scored 3.

Case 3: A 32-year-old male, bipolar I disorder, manic, baseline ECG and Met screen unrevealing, no history of cardiac comorbidities, nonsmoker, was put to 30 mg aripiprazole with 2 mg clonazepam. ECG read right bundle branch block. He was shifted to olanzapine and ECG normalized shortly after. Naranjo scale scored 6.

These reports remain scattered. Nonetheless, it cast some doubt that aripiprazole cardiosafety taken at face value might be overstated. Hence, caution should be exercised while prescribing aripiprazole, especially for high-risk groups and cardiac monitoring might then be warranted.

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Conflicts of interest

There are no conflicts of interest.

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