

Prolonged QTc in Black and Latinx Cisgender and Transgender Women Who are Living with HIV in an Urban Area

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Background

QT prolongation can predispose to torsade de pointes, which occurs at higher rates in people living with HIV (PLWH). Increased prevalence of prolonged corrected QT (QTc) interval has been reported in PLWH, suggesting that it may play a role in the increased risk for sudden cardiac death in this patient population. However, gaps in research due to limited participation of gender, racial and ethnic minorities continue to limit the interpretation of these findings. In this study, we assessed the hypothesis that Black and Latinx cis and transgender women living with HIV (WLWH) would have greater odds of having prolonged QTc.

Methods

A cross-sectional study was conducted by retrospectively reviewing electronic medical records to investigate the duration of the QTc interval between 2 groups, 137 WLWH versus 135 women who are not living with HIV. Associations between prolonged QTc and ethnicity, alcohol use, smoking, BMI, medications (methadone, antibiotics, antiretroviral therapy, and psychiatric drugs), hepatitis C, and heart failure (HF) were also assessed. QTc >460 milliseconds were considered prolonged.

Results

In the univariate logistic regression, living with HIV had significantly higher odds of having prolonged QTc than the control group (OR=1.842, 95% CI=1.062, 3.195, p=0.0298). After adjusting for the covariates selected a priori, living with HIV was associated with even higher odds of having prolonged QTc (OR=2.128, 95% CI=1.115, 4.061, p=0.023). HF was associated with higher odds of having prolonged QTc, even after adjusting for other covariates (OR=2.973, 95% CI=1.605, 9.836, p=0.0029).

Conclusions

In cis and transgender women of color, living with HIV and HF were both associated with higher odds of having prolonged QTc. In this patient population, particularly those at higher risk due to comorbidities such as HF, implementing routine EKG screening should be considered by clinicians as a strategy, among others, to prevent cardiac rhythm disturbances and cardiovascular morbidity and mortality.