Case Report

Acquired Long QT Syndrome and Torsade de Pointes Associated with HIV Infection

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Here, we report the case of an HIV-infected patient that was treated for pneumonia with a macrolid antibiotic. The patient experienced a prolongation of the already pathologic QTc interval resulting in repeated torsades de pointes necessitating CPR and implantation of an AICD. This case exemplifies that torsades de pointes due to acquired long QT syndrome is a serious and potentially fatal complication in HIV-positive patients.
are multiple possible explanations why long QT syndrome is more prevalent in HIV-infected patients, though. HIV-positive patients frequently receive medications that prolong the QT interval such as diflucan, clarithromycin, and cotrimoxazole. Furthermore, antiretroviral drugs themselves have been implicated to cause prolongation of the QT interval [4–6]. Table 1 summarizes drugs that are frequently given to patients with HIV and that are thought to be associated with QT prolongation. Whether HIV infection itself might cause heart disease and QT-interval prolongation is controversial.

In our patient, medications alone do not explain the presence of long QT syndrome since review of the ECG obtained upon admission already showed prolongation of the QT interval with a QTc of 474 msec. Thus, other mechanisms must have contributed to the prolongation of the QT interval. Autonomic dysfunction due to HIV-associated neuropathy is another presumed cause of long QT syndrome in HIV patients and could have been a contributing factor in our patient, who suffered from HIV-associated peripheral neuropathy [7, 8].

This case exemplifies that torsades de pointes due to acquired long QT syndrome is a serious and potentially fatal complication in HIV-positive patients. Multiple factors including antimicrobial drugs put HIV-infected patients at an increased risk for the development of acquired long QT syndrome. Physicians should therefore always maintain a high degree of clinical suspicion for the presence of long QT syndrome in patients with HIV and should be aware of the QT-prolonging side effects of drugs they prescribe for these patients.

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These authors contributed equally to this manuscript.

References

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