

JCV in throat washings of normal and HIV-infected persons

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Background: JC virus infection is ubiquitous. The mechanism of transmission from person to person remains uncertain. JCV has been demonstrated in tonsillar tissue and oropharyngeal transmission has been proposed as a potential means of transmission.

Objective: To determine the presence of JC virus in saliva and throat washings of a normal population, HIV-infected persons, and HIV-infected persons with PML.

Methods: Saliva, throat washings, and blood for peripheral blood leukocytes (PBLs) were collected from the three study groups. The specimens were analyzed for the presence of JCV using PCR. Samples were assayed in duplicate using RT-PCR. In HIV-infected subjects, the analysis was coupled with a determination of CD4 count and HIV viral load.

Results: In this preliminary analysis, no JCV could be amplified from the throat washings of 17 healthy individuals or from the 20 HIV-seropositive individuals. However, JCV was detected in the buffy coats of 4 of 17 healthy individuals and 13 of 20 HIV-seropositives. In the latter group, the presence of JCV in PBLs correlated inversely with CD4 counts and directly with HIV viral load.

Discussion: The absence of JCV in the throat washings of individuals who demonstrated JCV in peripheral blood suggests that oropharyngeal transmission is unlikely. The pool of study subjects is being expanded and data from this expanded subject population as well as the PCR analysis of saliva will also be presented.

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