ISOLATION AND BIOLOGICAL CHARACTERIZATION OF NON-B HIV TYPE 1 FROM KENYA.

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Source
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Abstract
The isolation and characterization of primary strains of human immunodeficiency virus (HIV) is a vital tool for assessing properties of viruses replicating in HIV-infected subjects. HIV-1 isolation was carried out from 30 HIV-1-infected patients from a Comprehensive Care Clinic (CCC) after informed consent.

Virus was successfully isolated from 9 out of the 30 samples investigated. Seven of the isolates were from drug-naive patients while two were from patients on antiretroviral drugs.

The isolates were biologically phenotyped through measurement of the syncytium-inducing capacity in MT2 cells. Six of the isolates exhibited syncytia induction (SI) associated with CXCR4 coreceptor usage while three of the isolates were non-syncytia-inducing (NSI) isolates associated with CCR5 coreceptor usage.

In addition, the replication capacity of the isolates was further determined in established cell line CD4(+) C8166. Indirect immunofluorescence assay was used to check the antigen expression on the cells as a supplementary test.

HIV-1 isolation success was 70% (7/10) and 20% (2/20) in naive and drug-experienced patients, respectively. The majority of the viral isolates obtained (6/9) were of the SI phenotype, though SI virus strains are rare among non-B subtypes.

A significant correlation between virus isolation success and viral load was established. Coreceptor use data for heavily treatment-experienced patients with limited treatment options are scanty and this is the group with perhaps the most urgent need of novel antiretroviral agents.

PMID: 22077875 [PubMed - indexed for MEDLINE]