



HLA-B*57:01: The Genetic Spoilsport in Abacavir Therapy

eP179

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Introduction:

1. Abacavir (ABC) is effective treatment for HIV/AIDS, but it can induce hypersensitivity reactions (HSR) in patients carrying the HLA-B*57:01 allele.
2. There are no existing guidelines for screening this allele in the Indian population before starting therapy.

AIM&OBJECTIVES:

This study aimed to determine prevalence of HLA-B*57:01 in the population and assess whether screening is warranted.

METHODOLOGY:

Study: Retrospective analysis (2022-2024) in the Department of Transfusion Medicine.

Data collected:

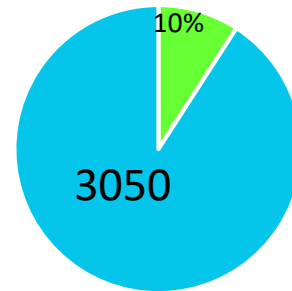
High-resolution(HR) typing

Illumina MiniSeq

HLA-B*57 testing

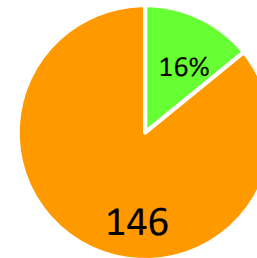
SSO(Luminex SD)platform

HLA- B*57:01
Positive in total
sample size



■ HLA B*57 Positive
■ total sample

HLA -B*57:01
Positivity in HIV
reactive
individuals



■ HLA B*57 Positive
■ HIV Reactive

RESULTS:

1st-Cohort-3050
underwent HR
Typing

Prevalence of HLA-
B*57:01- 10%

2nd cohort-146
individuals with
PLHA

HLA-B*57:01 locus
typing using SSO

24(16%)tested
positive

DISCUSSION :

Prevalence studies reported the presence of the HLA-B*57:01 allele in 8% of individuals in Serbia (Siljic et al.) and 3% of HIV-positive patients in Iran (Baniyadi et al.).

Conclusion:

With a population prevalence of 10%, HLA-B*57:01 occurs at a high frequency, as shown in our study . Given its link to severe hypersensitivity reactions, pre-treatment screening for HLA-B*57:01 is essential before initiating abacavir (ABC)

References:

- Mounzer, K., Hsu, R., Fusco, J. S., et al. (2019). HLA-B57:01 screening and hypersensitivity to abacavir, *AIDS Res Ther*, 16(1), 1.
- Siljic M, et al . High Frequency of Human Leukocyte Antigen-B*57:01 Allele Carriers among HIV-Infected Patients in Serbia. *Intervirolgy* 2017. Epub 2017 Aug 4.