Virologic response in HIV-1 infected patients treated with dolutegravir-containing ART regimens – a real-world study

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BACKGROUND

Dolutegravir (DTG) is an effective antiretroviral, associated with rapid virologic responses [1]. Intermittent viremia has been linked to a higher risk of virologic failure [2] and immune activation [3]. The precise consequences and factors responsible for this phenomenon remain controversial.

MATERIAL AND METHODS

227 patients starting DTG (May 15 - May 17)

RESULTS

- 164 ART-experienced suppressed at switch
- 8 ART-experienced not suppressed at switch (VL >200 copies/mL)
- 55 ART-naive

ART-naive | ART-experienced, virologically suppressed | ART-experienced not suppressed at switch
---|---|---
n | 55 | 164 | 8
ABC/3TC + DTG | 44 (80.0%) | 113 (68.9%) | 2 (25.0%)
TDF/FTC + DTG | 9 (16.4%) | 22 (13.4%) | 1 (12.5%)
Other regimens | 2 (3.6%) | 29 (17.7%) | 5 (62.5%)
Mean VL at baseline (copies/mL) | 568,573 | NA | 87,977
VL <20 copies/mL at week 48 | 38 (70.3%) | 137 (83.7%) | 5 (62.5%)
VL <50 copies/mL at week 48 | 52 (94.3%) | 156 (95.1%) | 6 (75.0%)
Blips >20 copies/mL | NA | 35 (21.3%) | NA
Blips >50 copies/mL | NA | 9 (5.4%) | NA
LLV >20 copies/mL | NA | 11 (6.7%) | NA
LLV >50 copies/mL | NA | 3 (1.8%) | NA

26 patients with baseline VL > 100,000 copies/mL

ART-naive | ART-experienced
---|---
24 (92.3%) | 2 (7.7%)
ABC/3TC based regimens | 17 (65%)
VL <20 copies/mL at week 48 | 6 (23.1%)
VL <50 copies/mL at week 48 | 23 (88%)

Patients with baseline VL<100,000 copies/mL had a higher probability of suppressing below 20 copies/mL at week 48 (p < 0.05)

CONCLUSIONS

The use of DTG in naive patients was associated with a 70.3% rate of viral suppression <20 copies/mL and 94.3% <50 copies/mL at week 48. Patients with a VL <100,000 copies/mL appeared to have a higher probability of suppressing <20 copies/mL. Experienced suppressed patients frequently developed intermittent viremia >20 copies/mL and >50 copies/mL (28.0% and 7.2%, respectively). Further investigations are needed to clarify its significance.

References