(https://www.ias2023.org)

Share https://programme.ias2023.org/Abstract/Abstract/?abstractid=1400

TITLE

Integrase inhibitor-based antiretroviral treatment does not increase the risk of TB-IRIS in people with HIV treated for findings from the Reflate TB2 randomized trial

PRESENTER

Lara Esteves Coelho

AUTHORS

L.E. Coelho[1], C. Chazallon[2], D. Laureillard[3,4], R. Escada[1], J.-B. Ntakpe[2,5], I. Timana[6], S.W. Cardoso[1], E. Messou[5,7], S. Eholie[5,7] Do Chau[9], V.G. Veloso[1], X. Anglaret[2], C. Deaugerre[10,11,12], J.-M. Molina[10,11,13], B. Grinsztejn[1], O. Marcy[2], N. De Castro[2,13]

INSTITUTIONS

[1]National Institute of Infectious Diseases Evandro Chagas, Oswaldo Cruz Foundation, Rio de Janeiro, Brazil, [2]Universit National Institute for Health and Medical Research (INSERM) UMR 1219, Research Institute for Sustainable Developmer Bordeaux Population Health Centre, Bordeaux, France, [3]Nimes University Hospital, Department of Infectious and Tro Nimes, France, [4]University of Montpellier, Research Unit 1058, Pathogenesis and Control Chronical Infections, INSERM, Center, Montpellier, France, [5]Programme PACCI/ANRS Research Center, Abidjan, Cote D'Ivoire, [6]Instituto Nacional de S Marracuene, Mozambique, [7]Centre de Prise en Charge de Recherche et de Formation, CePReF-Aconda-VS, Abidjan, C [8]Université Félix Houphouët Boigny, Département de Dermatologie et d'Infectiologie, UFR des Sciences Médicales, Ab D'Ivoire, [9]Pham Ngoc Thach Hospital, Ho Chi Minh City, Vietnam, [10]INSERM U944, Paris, France, [11]Université Paris Cité, P [12]AP-HP-Hôpital Saint-Louis, Virology Department, Paris, France, [13]AP-HP-Hôpital Saint-Louis Lariboisière, Infectious Di Department, Paris, France

BACKGROUND: Antiretroviral therapy (ART) initiation in people living with HIV (PWHIV) treated for tuberculosis (TB) may due to the occurrence of tuberculosis-associated immune reconstitution inflammatory syndrome (TB-IRIS). Integrase i by providing a faster HIV-RNA decline than efavirenz, could increase the risk for this complication. We sought to assess determinants of TB-IRIS in PWHIV with TB on raltegravir or efavirenz-based ART.

METHODS: We conducted a secondary analysis of the ANRS 12300 Reflate TB 2 multicenter, phase 3 trial, that randomiz PWHIV on standard TB treatment, to receive raltegravir or efavirenz-based ART. TB-IRIS was defined according to the Ir Network for the Study of HIV-associated IRIS (INSHI) criteria. Incidence rates (IR) were estimated by 100 persons-year (P Kaplan-Meier curves (log-rank test) and cox regression models were used to assess determinants of TB-IRIS.

RESULTS: Of 460 trial participants, 453 participants from Brazil, Côte d'Ivoire, Mozambique and Vietnam were included Median age 35 years (IQR: 29-43), 40% female, 69% pulmonary TB only, median CD4 102 (IQR 38-239) cells/µL and media 5.0-5.8) $\log_{10}$ copies/mL. Overall, 48 participants developed TB-IRIS (IR = 24.2/100 PY), 19 cases in the raltegravir arm and arm (log-rank test: p=0.123) (Figure). Factors associated with TB-IRIS were: CD4 count =100 cells/µL, HIV RNA =500,000 co pulmonary/disseminated TB (Table).

Figure. Stratified Kaplan-Meier curves for TB-IRIS-free survival probabilities by ART treatment (raltegravir arm *versus* efavirenz arm)

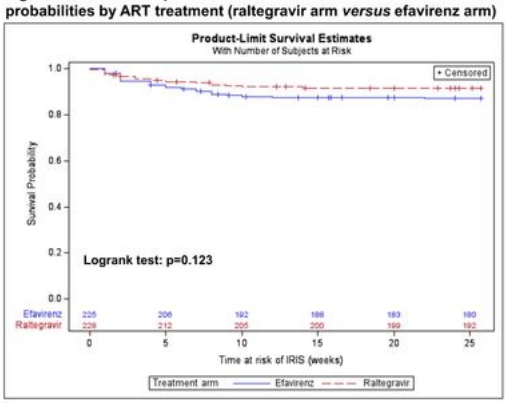

Table. Factors associated with TB-IRIS incidence.

	cHR	95% CI	aHR	95%CI
Country				
Ivory Coast	1			
Brazil	1.19	0.44-3.26		
Mozambique	0.47	0.18-1.19		
Vietnam	1.97	1.02-3.81		
CD4 (cells/mm3)				
CD4 >100	1		1	
CD4 ≤100	3.17	1.65-6.16	2.48	1.27-4.84
HIV VL (copies/mL)				
VL ≥ 500 000	1		1	
VL < 500 000	0.27	0.15-0.50	0.34	0.19-0.63
TB diagnosis at enrollment				
Pulmonary only	1			
Extrapulmonary/disseminated	2.22	1.25-3.93	2.17	1.23-3.85

VL: viral load; cHR: crude hazard ratio; aHR: adjusted hazard ratio; CI: confidence interval
ART treatment was not included in the cox regression models due to violation of proportional hazards assumption.

CONCLUSIONS: INSTI-based ART did not increase TB-IRIS risk. Low CD4 counts, high HIV RNA and extrapulmonary/disser risk factors for TB-IRIS.