

Comparison of immunological response to anti retroviral therapy (ART) in patients with HIV1, HIV 2 ,dual (HIV1/2) infected patients in a large ethnically diverse UK HIV cohort

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Background

In the UK, approximately 137 HIV-2 and 35 dual infections (HIV-1&2) had been reported to the Health Protection Agency by 2010.

Previous non-UK studies have shown poorer CD4 cell recovery in ART treated HIV-2 infection. To our knowledge there has been no studies done in UK looking at CD4 response to ART in HIV 2 infected and dually infected individuals.

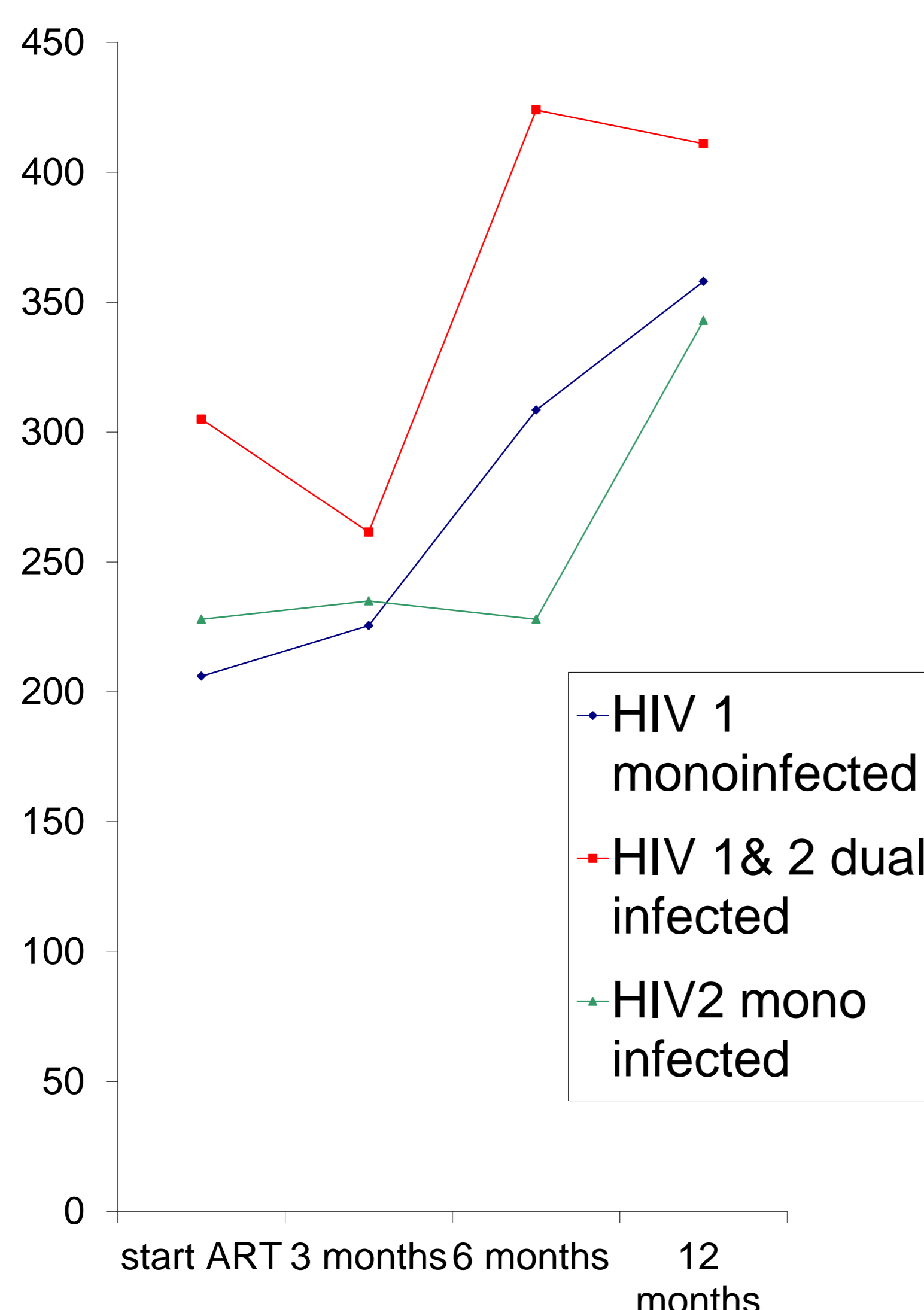
Aims and Objectives.

To describe CD4 counts changes in treated HIV-1, HIV-2 and dual infected UK patients.

Methods.

HIV-2 and dual infected patients attending between April 2002 and October 2011 were identified using virology databases. All patients were heterosexual. HIV 2 and dual infected patients were matched with heterosexual HIV 1 patients attending over the same period. Data on all attendees were extracted from electronic patient records

Results



Results A Total of 1467 heterosexual patients attended during this time. 1449 were HIV infected, 10 HIV 2 and 8 dual infected.

	HIV- 1 (1449)	HIV 1&2 (8)	HIV-2(10)
Sex/Ethnicity n(%)			
Females	901(62)	5(62.5)	7(70)
Black African	1271 (87.7)	7/8 (87.5)	9/10 (90)
/Caribbean	176(12.1)	1/8 (12.5)	1/10 (10)
White other	2 (0.13)		
Ethnicity not known			
Age at HIV diagnosis (Mean,SD)	35.2 (9.5)	37.4 (2.5)	37.7 (13.5)
AIDS diagnosis n(%)	326(24)	0 (0)	2 (20)
Median (IQR) Nadir CD4 count	192(80, 313)	269 (67, 286)	483(169,710)
First line ART n (%)			
NNRTI+2 NRTI	745(69)	3(42.9)	0
PI +2 NRTI	194(18)	4(57.1)	4(40)
Other	127(13)	0	1(10)
Median (IQR) CD4	(n=1066)	(n=7)	(n=5)
ART Start	206 (94, 330)	305 (76, 377)	228 (195, 343)
3 months	225.5 (235, 321)	261.5(171, 560)	235 (159, 329)
6 months	308.5 (235, 400)	424 (212, 547)	228 (214, 231)
12 months	358 (285, 463)	411 (232, 728)	343 (339, 344)

Conclusion

Median CD4 cell recovery appears to be delayed for HIV-2 patients at 6 months. By 12 months, however all groups reached median CD4 counts above 300. Dual infected patients reached a median CD4 count of above 350 at 6 months compared to other two groups. However we appreciate that our study is limited by the small number of HIV 2 and dual infected patients. Larger studies are needed to investigate whether CD4 counts responses are similar between the three groups.

References

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