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Oral presentation

O332 Opportunistic infections in immunocompromised but virologically suppressed HIV-1 infected patients

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Purpose of the study

The aim of this analysis was to compare the incidence of opportunistic infections (OIs) and death in immunocompromised patients with a CD4 count ≤200 cells/mm³ across those with:

• viral load (VL) <500 copies/mL whilst on combination antiretroviral therapy (cART) (VL <500 c group)

• VL ≥500 copies/mL whilst on cART (VL ≥500 c)

• VL ≥500 copies/mL whilst off all ART (VL ≥500 nc).

Methods

Patients contributed to the person-years at risk if the most recent CD4 count was ≤200 cells/mm³, and if VL was measured in the 6 months before the CD4 count. All patients contributing at least one month's follow-up were included. Multivariable analyses were adjusted for current CD4 count, VL, calendar time of follow-up, age, whether or not ART-naive, ethnicity, risk group, hepatitis B and C status, and for death rates, prior AIDS diagnosis.

Summary of results

4,886 patients were included contributing 7,625 person-years of follow-up (PYFU), during which time 741 OIs and 449 deaths occurred (Table 1). Patients in the VL <500 c group started cART a median time of 1.5 (IQR 0.6–3.7) years prior to baseline, while of 3,524 patients in the VL ≥500 c group, 1,298 (37%) had previously been virologically suppressed, a median time of 8 (IQR 4–18) months before baseline. 605 patients (37%) in the VL ≥500 nc group had never started cART, and among those that had, the median time since stopping cART was 1.1 (IQR 0.5–C5.4) months.

After adjustment, compared to the VL <500 c group, there was a 2-fold increased incidence of OIs in the VL ≥500 c group and a 4-fold increased incidence in the VL ≥500 nc group. There was a much higher crude death rate in the VL ≥500 nc group compared to the other two groups (Table). After adjustment, the death rate in the VL ≥500 nc group remained over eight times higher than both the VL <500 c and VL ≥500 c groups. When comparing the VL <500c and VL ≥500 c groups, the lower death rate observed in the VL ≥500 c group was found to be mostly explained by differences in cART regimen.

Conclusion

Achieving virological suppression in immunocompromised patients is important for reducing the risk of OIs. Patients on cART have a much lower risk of death than those not receiving cART, regardless of viral suppression. Part of this difference in risk of death may be due to ter-

Table 1:

	VL <500 c	VL ≥500 c	VL ≥500 nc
PYFU	3507	4274	934
Number of OIs	104	414	223
Crude event rate (95% CI)	3.0 (2.4–3.5)	9.7 (8.8–10.6)	23.9 (20.8–27.0)
Adjusted rate ratio (95% CI)	1.0	1.9 (1.5–2.4)	4.3 (3.3–5.7)
5 most commonly occurring OIs, n (% of all OIs):			
Oesophageal candidiasis	11 (11%)	70 (17%)	50 (22%)
PCP	6 (6%)	11 (3%)	21 (9%)
Cytomegalovirus (CMV) chorioretinitis	2 (2%)	38 (9%)	11 (5%)
HIV wasting syndrome	6 (6%)	27 (7%)	11 (5%)
Mycobacterial tuberculosis, pulmonary	6 (6%)	22 (5%)	13 (6%)
Number of deaths	86	104	259
Crude event rate (95% CI)	2.5 (1.9–3.0)	2.4 (2.0–2.9)	27.7 (24.4–31.1)
Adjusted rate ratio (95% CI)	1.0	0.7 (0.5–1.0)	8.5 (6.4–11.1)
Median (IQR)			
Calendar time of follow-up	09/01 (06/99-06/04)	04/00 (07/98-02/03)	01/01 (03/99-08/03)
CD4 count (/cells/mm3)	148 (109–178)	118 (61–160)	108 (50–158)
VL (log10 copies/mL)	1.7 (1.7–2.3)	4.4 (3.6–5.0)	4.9 (4.3–5.4)

minally ill patients being taken off cART and warrants further analysis of deaths caused by OIs and deaths caused by non-OIs.