

No Benefit of Standard Vitamin D/Calcium Supplementation in HIV-infected Individuals

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Background

The prevalence of vitamin D deficiency (25-hydroxyvitamin D (25[OH] D) in HIV infected individuals ranges from 60 to 90% and is associated with female gender, black ethnicity and antiretroviral use [1-2]. First-line antiretroviral therapy (ART) includes non-nucleoside reverse transcriptase inhibitors (NNRTI) and protease inhibitors (PI).

vitamin D replacement therapy and there was no difference between the groups (exact test p=0.215).

Primary outcome	Vitamin D supplement arm N=15		No-vitamin D arm N=14		Adjusted coefficient (95% CI) between arms from baseline to week 48*	P-value
	Baseline (mean [SD] or median [IQR])	Week 48 (mean [SD] or median [IQR])	Baseline (mean [SD] or median [IQR])	Week 48 (mean [SD] or median [IQR])		
25(OH)D ug/L	20.55 (10.37)	15.53 (9.83)	10.5 (5.55)	10.70 (6.34)	0.74 (-7.60, 9.08)	0.85
Bone mineral density (BMD) (g/cm ²)						
Hip TSC	-0.01 (0.88)	-0.01 (0.85)	-0.28 (0.79)	-0.28 (0.84)	-0.01 (-0.16, 0.14)	0.9
Hip ZCS	-0.06 (0.65)	-0.04 (0.66)	-0.20 (0.56)	-0.16 (0.59)	-0.04 (-0.12, 0.04)	0.32
Spine TSC	-0.17 (1.41)	-0.12 (1.49)	-0.68 (1.18)	-0.62 (1.13)	0.01 (-0.22, 0.25)	0.9
Spine ZCS	-0.26 (1.40)	-0.37 (1.46)	-0.51 (1.17)	-0.46 (1.06)	-0.13 (-0.60, 0.34)	0.56

SD: Standard Deviation; 25(OH)D: 25-hydroxy vitamin D; *Multivariate model comparing mean difference between arms adjusted for age, ethnicity, gender, season and baseline

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