

## Correlation between lipid profile and daily intake of calcium and vitamin D in HIV/HCV co-infected patients

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**Background and Aims:** Hepatitis C co-infection is prevalent in Iranian HIV patients due to IV drug abuse as the most common HIV virus transmission in our country. Dyslipidemias produce atherosclerosis, which in turn produces cardiovascular events. This study investigates the relation between daily intake of calcium and vitamin D and lipid profile in HIV/HCV co-infected patients.

**Methods:** An observational-cross sectional study was conducted on HIV/HCV co-infected patients 18-65 years, referred to the consulting center of behavioral diseases in Imam Khomeini Hospital, Tehran, Iran. Patients' demographic data was recorded. Lipid profiles include total cholesterol, LDL and HDL cholesterol and triglycerides was determined and body mass index (BMI), daily intake of calcium and vitamin D was calculated. Patients' physical activity level was also assessed based on the International Physical Activity Questionnaires (IPAQ).

**Results:** Fifty three HIV/HCV co-infected adult patients with the median age of 39 years (28-59) completed this study. BMI (mean±SD) was 22.88±3.12 and 52 patients (98.1%) were male. Transmission route of HIV virus in 71.7% was IV drug abuse, 3.8% sexual contact and 18.9% both IDU and sexual contact. Most of patient's physical activity was in low grade (62.3%) and only 7.5% had high level physical activity. Patient's median daily intake of vitamin D and calcium was 77.57 IU (0-330) and 535.71mg (42-2400) respectively. Patients with higher vitamin D intake had higher HDL (p=0.006). Higher calcium intake was associated with lower LDL but it was not significant. There was a positive correlation between calcium and vitamin D intake (p=0.021).

**Conclusions:** IV drug abuse was the main transmission rout in HIV/HCV co-infected patients. Daily intake of calcium and vitamin D is lower than desirable amount in these patients. Vitamin D intake has a significant positive effect on patients HDL.

**Keywords:** HIV; Hepatitis C; Lipid profile; Vitamin D; Calcium