Association of weekly or biweekly use of 50 000 IU vitamin D3 with hypervitaminosis D

Sima Hashemipour¹, Arefeh Ghobadi¹, Seyyed Mohammad Reza Hadizadeh Khairkhah¹, MehdiRanjbaran¹, Milad Badri², Seyyed Hamidreza Ghafelehbashi¹, Maryam Gheraati¹

¹Metabolic Diseases Research Center, Research Institute for Prevention of Non-Communicable Diseases,

Qazvin University of Medical Sciences, Qazvin, Iran.

²Medical Microbiology Research Center, Qazvin University of Medical Sciences, Qazvin, Iran.

Abstract

Since the beginning of the COVID-19 pandemic, many Iranian people have been taking 50000 IU of vitamin D3 on weekly or biweekly bases in order to enhance their immunesystem function. This cross-sectional study was conducted on the patients of endocrinologyclinic to compare 25(OH)D levels of weekly or biweekly consumption with the monthlyusers of vitamin D3 50 000 IU. The level >100 ng/mL of 25(OH)D was defined ashypervitaminosis D. In total, 211 patients (108 and 103 patients in monthly andweekly/biweekly groups, respectively) were studied. In the subgroups of weekly and biweekly users, the rates of hypervitaminosis were 18.9% and 4.5%, respectively. In contrast, only 0.9% of monthly users had hypervitaminosis D. The highest vitamin D value of 185 ng/mL was detected in a patient who had consumed 50 000 IU vitamin D3 weekly for 6 years. No hypercalcaemia was detected in patients with hypervitaminosis D.

Keywords: biweekly 50 000 IU vitamin D; hypervitaminosis D, weekly.