"VITAMIN D BASAL LEVELS AND AFTER REPLACEMENT, COGNITIVE DISORDERS, MUSCULAR STRENGTH AND FALLS IN ADULTS AND ELDERLY PEOPLE ATTENDED OR NOT AT UNIVERSITY HOSPITAL-PRELIMINARY RESULTS"

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Abstract
Determination of serum levels of vitamin D baseline and after replacement, and relate them to cognitive function, muscular strength and falls. The occurrence of inadequate levels of vitamin D is frequent among adults and elderly people. Oral supplementation of vitamin D in this phase of the project was accomplished, however, participants did not achieve adequate serum levels.

Key words: Vitamin D, elderly people, cognitive disorders.

Introduction
Reduced serum levels of 25 OH vitamin D (25OHD3) are associated with increased risk of cognitive disorders1. Risk factors for falls: cognitive disorders, muscular weakness2, among others. Controlled studies suggest that vitamin D supplementation reduces the risk of falls3.

The objective of this study was the baseline determination of serum levels of vitamin D and after replacement and relate them to cognitive function, muscular strength and falls.

Results and Discussion
Two groups were established, G1, composed of 28 elderly patients attended at the University Hospital and G2 with 14 community individuals. All participated in a previous project and had inadequate serum levels of vitamin D (<30 ng / ml or 75 nmol / L). Methods: Oral supplementation of vitamin D3, under medical supervision for six months, prescribed doses, depending on the vitamin D levels: > 20 to 30 ng / ml-1000 IU / day; 10 to 20- 2000IU / day; <10 ng / ml- 3000UI / day. Cognitive functions evaluation - Mini Mental State Examination (MMSE), Geriatric Depression Scale (GDS), basic activities (BADL), instrumental (IADL) of daily living and subclasses (I-independent A-aid, D-dependent); sociodemographic data- age, sex, number of diseases, scholarity; waist-hip ratio (WHR), occurrence of falls; consumption of milk and derivatives; grip strength test right and left hand (GS R, GS L), vitamin D serum levels (25OHD total) by two methods: radioimmunoassay (RIA) and Chemiluminescence (Chemo).

Chart 1: Characterization of the groups G1 and G2

Graphic 1: Vitamin D: RIA and Chemo basal vs after replacement

Conclusions
The occurrence of inadequate levels of vitamin D was found to be frequent among adults and elderly people. Oral supplementation of vitamin D in this phase of the project was conducted, however, the participants have not achieved adequate levels.

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