Anxiety and Depression is associated with decreased Vitamin D levels in an elderly population in Northern Greece

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INTRODUCTION

• The initial aim of this study has been the correlation of vitamin D levels with Depression and Anxiety
• Due to the geographical location of our country, we expected that the greatest percentage of inhabitants would have high levels of vitamin D
• Despite the sunlight exposure, a great number of participants were found to have insufficient levels of vitamin D. This significant finding led us to a secondary study in order to investigate the other factors (mental disorder, lifestyle, sunblockers, institutionalization, etc) that play crucial role concerning the escalation of vitamin D levels.
AIM / OBJECTIVE:

- Decreased 25-hydroxyvitamin D levels are common in elderly people and have been associated with depressive symptoms.
- Depression and anxiety are highly interrelated, but few studies have examined the association between 25(OH) D and anxiety.
- The aim of this study has been the correlation of vitamin D levels with depression and anxiety symptoms in an elderly population in Northern Greece.
MATERIALS AND METHODS:

• Data were collected from 130 elderly individuals (N = 130, 60–98 years), from October 2015 to November 2017. Blood samples were collected during the winter periods and vitamin D levels were measured.

• The psychological state of the participants was assessed with the STAI, which consists of two scales: S-Anxiety and T-Anxiety.

• Anxiety level for each participant estimated and the results were classified in a four-grade scale (1=low, 2=medium, 3=high, 4=very high).
• Furthermore, symptoms of depression assessed with the CES-D scale, a useful tool to detect depression symptoms.
• The indicated value index for the presence of depression in Greek population is greater than 9.03. The statistical data processing was carried out using the SPSS.
RESULTS:

- The individuals were classified as vitamin D sufficient (25(OH)D >30ng/ml), insufficient (25(OH)D:21-29ng/ml), deficient (25(OH)D < 20ng/ml) and severely deficient (25(OH)D <10ng/ml).

- 67.7% of the participants (n=88) were either insufficient or deficient and 5.4% of the participants (n=7) were found to suffer from severe vitamin D deficiency.
80% (n=71 of participants) of the insufficient/deficient cohort were suffering from anxiety or depression while either anxiety or depression symptoms was present in half of the participants that were vitamin D sufficient. All individuals (n=7) that suffered from both anxiety and depression were vitamin D severely deficient.
CONCLUSION:

- Both anxiety and depression are common in elderly population. Vitamin D deficiency or insufficiency may be an additional factor that promotes these conditions.
- Further studies are needed to clarify whether vitamin D supplementation could be beneficial in ameliorating or reversing anxiety or depressive symptoms in affected individuals with low vitamin D levels.
REFERENCES:

THANKS FOR YOUR ATTENTION