



National Pirogov Memorial Medical
University, Vinnytsya

Vitamin D deficiency as a complicating factor of COPD course

The 3rd International Conference "Vitamin D - minimum, maximum, optimum" under the auspices of the European Vitamin D Association (EVIDAS).

22 – 23 September, 2017 , Warsaw

Masik N.P. professor of the department of internal medicine №2



Introduction

- Metabolic peculiarities of vitamin D and the presence of vitamin D nuclear receptors enable to consider it as a vitamin working within the endocrine system of D-hormone.
- The functions of this system lie in the ability to generate and encode biological reactions in over 40 body tissues, whereas the vitamin synthesis is performed by almost all cells of the organism.



Introduction

- Therefore, the issue of vitamin D deficiency in connection with the development of numerous diseases, in particular, pulmonary, is very topical nowadays.



The aim of the research :

- **is to define the vitamin D level in patients with COPD**



Materials and methods:

Over 47 patients with acute form of COPD, of average age $53,6 \pm 12,8$ were examined.

All the patients were examined for general vitamin D.

Results:



All the patients with COPD showed vitamin D deficiency of various levels

- A severe vitamin D deficiency was diagnosed in 23,08 % young persons,
- in 69,23 % elderly people,
- in 100 % of old people.



We also noticed a real decrease of content of D vitamin depending on the severity of COPD

- At Stage IV of COPD the level of D vitamin decreased by 1,75 times as compared to the patients of Stage I.
- A severe form of vitamin D deficiency was found in 44,45 % patients of Stage I of COPD, 38,46 % – those of Stage II, 66,67 % – those of Stage III and in 100 % patients of Stage IV of COPD.



Results:

- Moreover, statistically remarkable changes in vitamin D level were noticed during the comparison of patients with Stages I and IV of COPD ($p = 0,006$).
- A prudent ($p < 0,05$) negative correlation between vitamin D level and COPD stage ($r = -0,38$) and the stage of pulmonary disorder ($r = -0,44$) was determined.



Conclusion

- The level of vitamin D deficiency depends on the age and the severity degree of COPD.

Thank you for attention!

