

# Abstract Presentations

## 3. Malek Chaabouni, Tunisia



## **Hot Topic Clinical Practice Webinar & Abstract Presentations**

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# **Prevalence of vitamin D deficiency and insufficiency in patients with COPD**

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# Disclosures

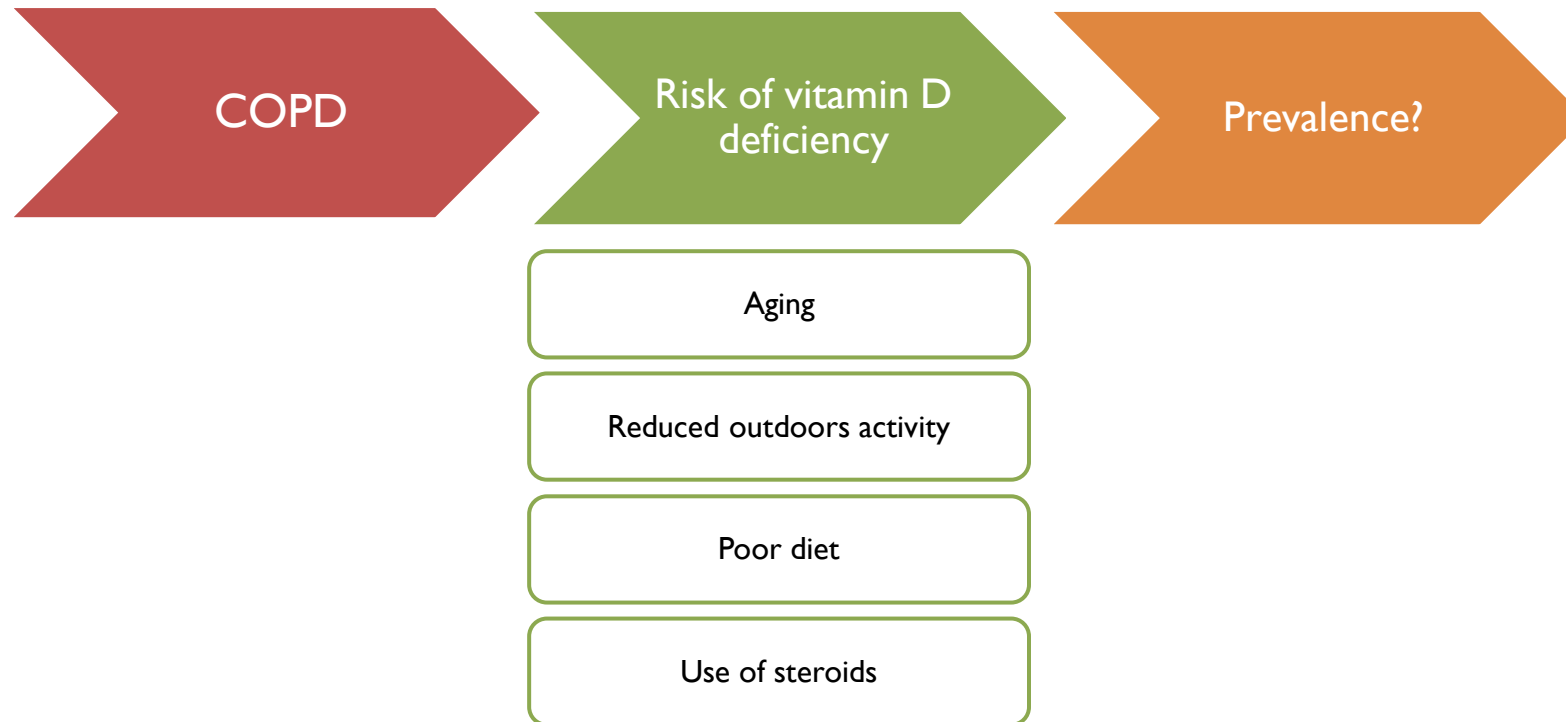
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- ▶ The authors have no conflict of interest.
- ▶ The study was achieved without funding.



# Background & Aim

- ▶ Vitamin D deficiency: Public Health issue in many countries<sup>1</sup>.
- ▶ In the general Tunisian adult population (20-60 years): 47.6% < 15ng/ml (37.5nmol/l)<sup>2</sup>.
- ▶ COPD: specific population.



<sup>1</sup> Cashman KD, Sheehy T, O'Neill CM. Is vitamin D deficiency a public health concern for low middle income countries? A systematic literature review. Eur J Nutr. févr 2019;58(1):433-53.

<sup>2</sup> Meddeb N, Sahli H, Chahed M, Abdelmoula J, Feki M, Salah H, et al. Vitamin D deficiency in Tunisia. Osteoporos Int. févr 2005;16(2):180-3.

# Methods

- ▶ Cross-sectional study, between February 1<sup>st</sup> and March 31<sup>th</sup>, 2019.
- ▶ Inclusion criteria:
  - Male individuals
  - COPD
  - Outpatient clinics

▶ Cut-offs:



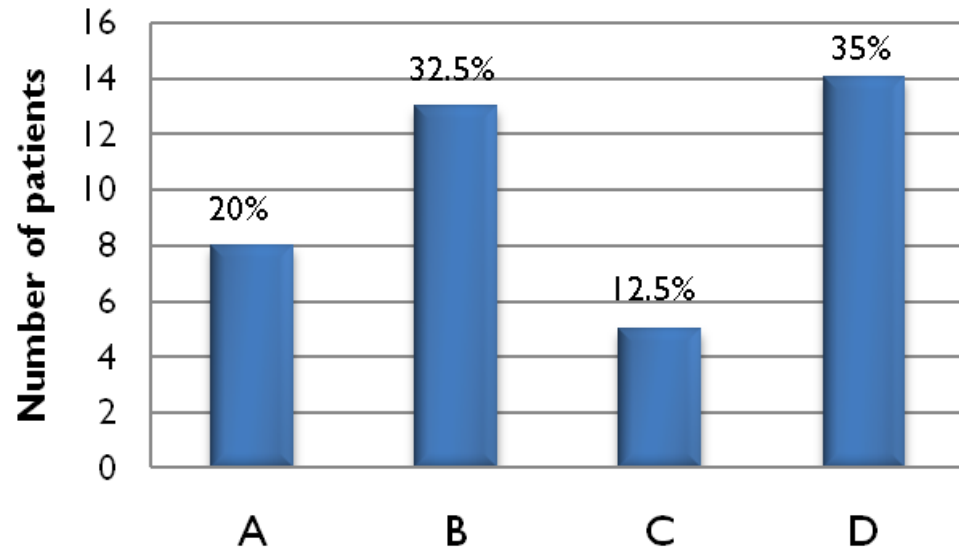
<sup>1</sup> Bouillon R, Carmeliet G. Vitamin D insufficiency: Definition, diagnosis and management. Best Pract Res Clin Endocrinol Metab. oct 2018;32(5):669-84.

<sup>2</sup> Sempos CT, Heijboer AC, Bikle DD, Bollerslev J, Bouillon R, Brannon PM, et al. Vitamin D assays and the definition of hypovitaminosis D: results from the First International Conference on Controversies in Vitamin D: Vitamin D assays and defining hypovitaminosis D. Br J Clin Pharmacol. oct 2018;84(10):2194-207.

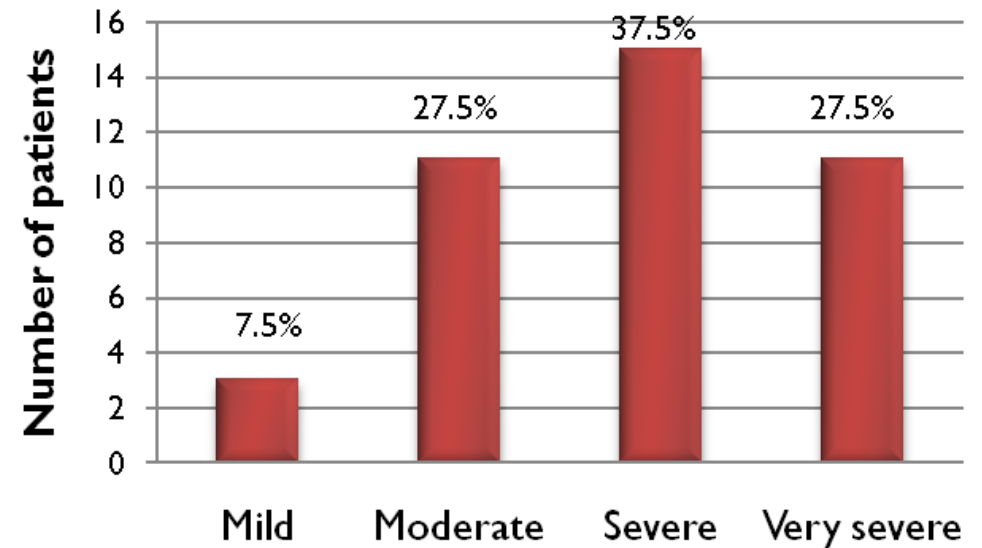
# Results

- ▶ 40 patients recruited.
- ▶ Their mean age was  $67.5 \pm 7.9$  years.

**ABCD distribution**

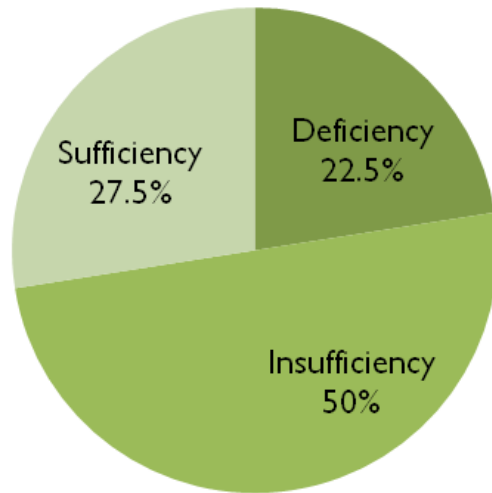


**GOLD distribution**

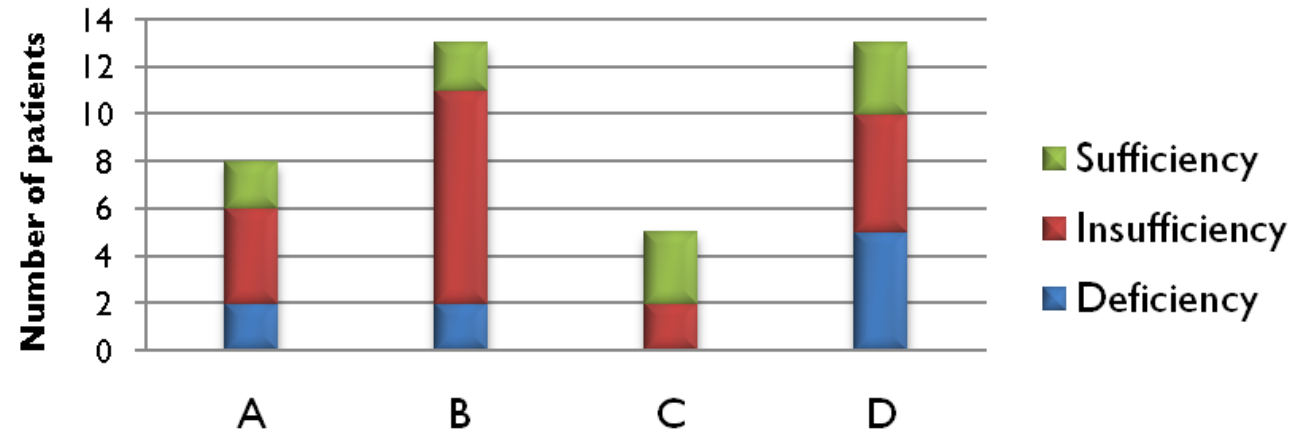


# Results

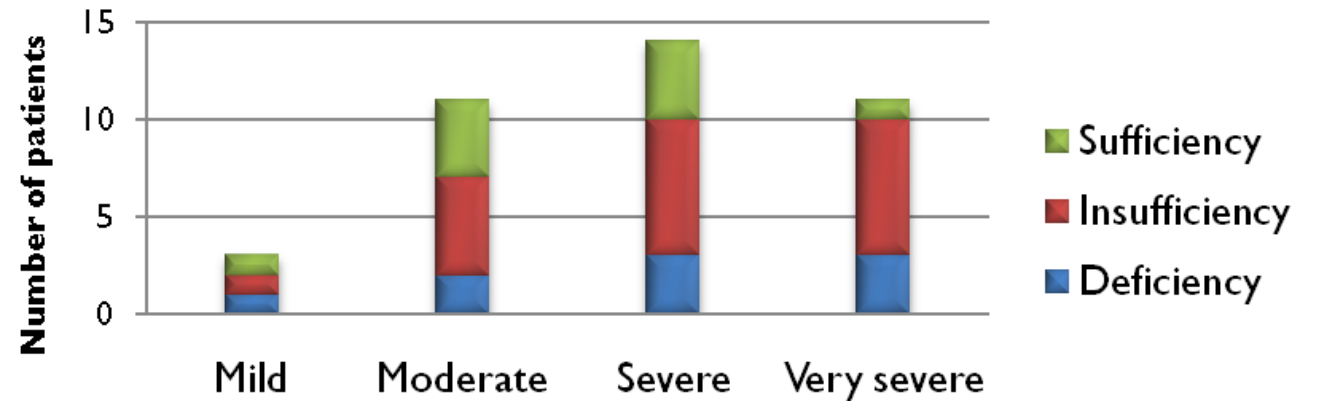
## Vitamin D status



## Vitamin D status in each ABCD group



## Vitamin D status and airflow limitation



# Conclusions

- ▶ Vitamin D deficiency and insufficiency prevalence was high.
- ▶ They should be expected and then prevented especially in advanced stages of the disease.
- ▶ Lockdown is an additional risk factor to decrease vitamin D levels: Advise sun exposure.
- ▶ Vitamin D supplementation:
  - ▶ prevents exacerbations in deficient COPD patients<sup>1</sup>.
  - ▶ may prevent COVID-19<sup>2</sup>.



LETTER TO THE EDITOR

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**Vitamin D supplementation to prevent COVID-19 in patients with COPD: a research perspective**

<sup>1</sup> Jolliffe DA, Greenberg L, Hooper RL, Mathysen C, Rafiq R, de Jongh RT, et al. Vitamin D to prevent exacerbations of COPD: systematic review and meta-analysis of individual participant data from randomised controlled trials. *Thorax* 2019;74:337–45.

<sup>2</sup> Chaabouni M, Feki W, Chaabouni K, Kammoun S. Vitamin D supplementation to prevent COVID-19 in patients with COPD: a research perspective. *Adv Respir Med* 2020;88(3).doi:10.5603/ARM.a2020.0101.



