

## Peer Review

# Review of: "Vitamin D Deficiency in Smokers: A Major Risk Factor in Lung Carcinogenesis"

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*I thank the authors for presenting this article and its importance in the scientific community. The study is well written. However, I have made some recommendations to improve this article.*

- What is the significance of this review compared to other similar articles? Does your research fill a knowledge gap in the field? If there are any points that need further emphasis, they should be presented in the form of key points.
- Introduction
- In the first paragraph (last 3 lines), which reference is the statistic added based on? (Around **14%** of lung cancer/// most cases of lung cancer deaths (**two-thirds**)). Please add a valid reference. Some of the articles that mentioned these items are placed here for authors to use.

Chen CY, Huang KY, Chen CC, Chang YH, Li HJ, Wang TH, Yang PC. The role of PM2.5 exposures in lung cancer: mechanisms, genetic factors, and clinical implications. *EMBO Molecular Medicine*. 2025 Jan 13;17(1):31-40.

Huang F, Pan B, Wu J, Chen E, Chen L. Relationship between exposure to PM2.5 and lung cancer incidence and mortality: A meta-analysis. *Oncotarget*. 2017 Jun 27;8(26):43322-43331.

Laguna JC, García-Pardo M, Alessi J, Barrios C, Singh N, Al-Shamsi HO, Loong H, Ferriol M, Recondo G, Mezquita L. Geographic differences in lung cancer: focus on carcinogens, genetic predisposition, and molecular epidemiology. *Therapeutic Advances in Medical Oncology*. 2024 Mar; 16:17588359241231260.

- The authors state in the second paragraph that "tobacco smoking is the leading cause of lung cancer mortality."

Although lung cancer is reported to be the leading cause of cancer mortality worldwide, the cause of this type of cancer can be the result of various factors or a combination of factors, including genetics, chemical factors, etc. Smoking can be one of the main risk factors for lung cancer. The authors can refer to the following article for an analysis of this hypothesis or provide sufficient citations to support this statement. It is better to rewrite this sentence.

Leiter, A., Veluswamy, R.R. & Wisnivesky, J.P. *The global burden of lung cancer: current status and future trends. Nat Rev Clin Oncol* 20, 624–639 (2023). <https://doi.org/10.1038/s41571-023-00798-3>.

- There are not enough results for the relationship between vitamin D and lung cancer; you need to do more discussion and analysis on this. The explanation is very brief and general.
- Molecular aspects of smoking and lung cancer
- In this section, the authors have pointed out the oxidative damage caused by smoking in the pathogenesis of lung cancer. It would be better if the authors considered this section as a sub-heading and fully evaluated the potential association of vitamin D concentration and its relationships with oxidative stress and lung cancer risk, and then addressed the role of smoking as a risk factor, compared the results of different studies, and reached an overall conclusion.

Caliri AW, Tommasi S, Besaratinia A. *Relationships among smoking, oxidative stress, inflammation, macromolecular damage, and cancer. Mutation Research/Reviews in Mutation Research.* 2021 Jan 1; 787:108365.

- Considering the results you presented from other articles, what suggestions do you have for other researchers in conducting future studies?

## Declarations

**Potential competing interests:** No potential competing interests to declare.