

Review of: "Human health effects of volcanic eruptions – a systematic review"

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Potential competing interests: No potential competing interests to declare.

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General Comments: I appreciate the opportunity to review this comprehensive study on the human health effects of volcanic eruptions, presented as a systematic review.

The authors have excelled in presenting a well-organized and clearly articulated body of work. The review appears to be exhaustive, covering the relevant literature on the subject matter. This work serves as a valuable resource for professionals in various fields—most notably emergency physicians and pulmonologists who are often the first responders during volcanic eruptions. The authors provide a thorough overview of the clinical characteristics and complications associated with volcanic eruptions, covering a wide range of diseases such as respiratory, ophthalmological, cardiovascular, and cancer conditions, among other effects on human health.

The study notably draws upon existing scientific evidence to discuss both the short- and long-term health implications of volcanic eruptions. It further delves into the relationship between these health consequences, providing useful insights for the formulation of appropriate contingency plans and measures. The manuscript rightly emphasizes that respiratory issues are the most common health effects due to exposure to volcanic ash and gas.

Recommendations: 1. **Future Research Suggestions:** The manuscript underscores the necessity for more research to ascertain the short- and long-term health effects of exposure to volcanic particles. Could the authors elaborate on potential research avenues or methodologies that future studies could adopt? 2. **Inclusion of Psychiatric Disturbances:** The study mentions the chronic exposure to various gases, including H₂S, which has been linked to nervous system and respiratory diseases. However, there appears to be no mention of psychiatric disturbances post-eruption. Could the authors comment on this omission? 3. **Expansion on Medical Information:** While the study is comprehensive, there is an opportunity to enrich it further by including more detailed medical information on how volcanic eruptions decompose in the human body, in the discussion section. Given the manuscript's focus on occupational and environmental diseases, this would provide a more rounded view of the subject matter.

Overall, the manuscript is insightful and well-structured, contributing significantly to our understanding of the human health impacts of volcanic eruptions. I have no major criticisms but encourage the authors to consider the above recommendations for enhancement. I look forward to seeing the revised manuscript and commend the authors for their valuable contribution to this important field of study.

Accepted with minor correction