

# Review of: "Retinal Vasculitis Following COVID-19 Infection: A Systematic Review"

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

The aim of this manuscript is to conduct a systematic review of literature to identify cases of vasculitis following coronavirus disease (COVID-19) infection and analyse their specific systemic and ocular features.

This manuscript shows rich content, providing a deep insight into some works: the study is within the journal's scope, and I found it to be well-written, providing sufficient information. Even if the manuscript provides an organic overview, with a densely organized structure and is based on well-synthesized evidence, there are some suggestions necessary to make the article complete and fully readable. For these reasons, the manuscript requires major changes.

Please find below an enumerated list of comments on my review of the manuscript:

## MINOR POINTS:

The authors should provide a list of the abbreviations mentioned in this manuscript.

## MAJOR POINTS:

### INTRODUCTION:

The major concern of this manuscript is the lack of a historical background of the COVID-19 pandemic: The COVID-19 pandemic started in the seafood market of Wuhan, China, in early December 2019 and then rapidly spread to Thailand, Japan, South Korea, Singapore, and Iran. Furthermore, the World Health Organization (WHO) declared the outbreak of the COVID-19 disease a pandemic on 11 March 2020 (see, for reference: <https://doi.org/10.3390/pathogens11080867>). According to recent scientific evidence, this manuscript may benefit from providing a complete and organic overview of the spreading of the SARS-CoV-2 infection, a global health threat characterized by different extrapulmonary manifestations.

As regards the causative agent for COVID-19, severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), it is an enveloped positive single-stranded RNA virus, with the most prominent viral genome of 8.4–12 kDa in size. There is a 5' terminal in this viral genome, the central part of this genome, rich in open reading frames, which encodes proteins essential for virus replication. Instead, the 3' terminal includes five structural proteins: the Spike protein (S), the membrane protein (M), the nucleocapsid protein (N), the envelope protein (E), and the hemagglutinin-esterase protein (HE) (see, for reference: [https://doi.org/10.1016/S0140-6736\(20\)30251-8](https://doi.org/10.1016/S0140-6736(20)30251-8)).

The main topic is interesting, and certainly of great clinical impact. As regards the originality and strengths of this

manuscript, this is a significant contribution to the ongoing research on this topic, as it extends the research field on the cases of vasculitis following corona-virus disease (COVID-19) infection and analyses their specific systemic and ocular features. Overall, the contents are rich, and the authors also give their deep insights for some works.

As regards the section on methods, there is a specific and detailed explanation of the methods used in this study: this is particularly significant, since the manuscript relies on a multitude of methodological and statistical analyses to derive its conclusions. The methodology applied is overall correct, the results are reliable, and adequately discussed.

The conclusion of this manuscript is perfectly in line with the main purpose of the paper: the authors have designed and conducted the study properly. As regards the conclusions, they are well written and present an adequate balance between the description of previous findings and the results presented by the authors.

Finally, this manuscript also shows a basic structure, properly divided, and looks very informative on this topic. Furthermore, figures and tables are complete, organized in an organic manner, and easy to read.

In conclusion, this manuscript is densely presented and well organized, based on well-synthesized evidence. The authors were lucid in their style of writing, making it easy to read and understand the message portrayed in the manuscript. Besides, the methodology design was appropriately implemented within the study. However, many of the topics are very concisely covered. This manuscript provided a comprehensive analysis of current knowledge in this field. Moreover, this research has futuristic importance and could be potential for future research. However, major concerns of this manuscript are with the introductory section: for these reasons, I have major comments on this section for improvement before acceptance for publication. The article is accurate and provides relevant information on the topic, and I have some major points to make that may help to improve the quality of the current manuscript and maximize its scientific impact. I would accept this manuscript if the comments are addressed properly.