

Review of: "Big Data From TriNetx on the Association of Retinal Vascular Occlusion and COVID-19 Vaccinations"

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Potential competing interests: No potential competing interests to declare.

Overall, this is a clear and concise review comparing the results of two big data studies on the association of retinal vascular occlusion (RVO) and COVID-19 vaccinations.

However, there are many issues in the interpretation and comparison of these two currently available TriNetX big data reports, including the differences in types of COVID-19 vaccination studied, comparison groups, exclusion and inclusion criteria, timeframe, and categories of RVaO analyzed. Therefore, the causality between RVO and COVID-19 vaccination is undeterminable because of the retrospective nature of the studies, heterogeneous reporting styles, contradicting laboratory findings, and co-existing vascular risk factors. Much caution should be applied when interpreting studies of these kinds.

The review should provide a detailed description of how these differences might impact the interpretation of the results, focusing on all the limitations of the studies that are evaluated. Additional articles should be included to make the review more comprehensive and to elucidate whether COVID-19 vaccines could really have an ophthalmic impact.