



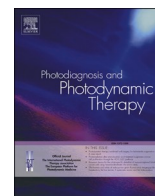
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Letter to the Editor



## Comment on Retinal findings of COVID-19 patients using ocular coherence tomography angiography two to three months after infection: Ocular appearance recovered COVID-19 patient

Dear editor,

We went through the article titled “Retinal findings of COVID-19 patients using ocular coherence tomography angiography two to three months after infection: Ocular appearance recovered COVID-19 patient” by Naderi Beni et al. [1]. The authors need to be commended for their excellent work. We have a few observations. Patients over a wide age range (9–67 years) were included for the study. The authors have a wide range of disorders that helped in excluding the patients from the study. It will be beneficial to know if a history of smoking was obtained from the participants before enrolling them in the study. Previous studies have shown that smoking can be associated with retinal alterations in the form of changes in retinal nerve fibre layer and retinal microvasculature [2,3]. Mechanisms associated with retinal damage induced by smoking include vasospasm, hyper viscosity, oxidative stress and endothelial dysfunction. Patients with smoking history should also be excluded as it can act as a confounding factor and affect the final results.

A history of if the participants are suffering from migraine should also be obtained and should be one of the exclusion criteria. Patients with migraine can be associated with retinal abnormalities like thinner retinal nerve fibre layer, ganglion cell layer and choroidal thickness [4]. Vasospasm induced by release of vasoconstrictive elements leading to reduced retinal blood flow is the possible mechanism associated with the retinal alterations seen in patients with migraine. Just as in the case with smoking, migraine can be a confounding factor and needs to be excluded out.

The authors have rightly mentioned that the small sample size is a limitation of the study. This was a cross sectional study and the patients were examined only once. Longitudinal studies should be planned and the patients should be checked at regular intervals to detect any changes in the ocular parameters in the long run. This will help in studying the long term changes induced by the corona virus disease 2019 (COVID 19).

### CRedit authorship contribution statement

**Pradeep Kumar Panigrahi:** Conceptualization, Methodology, Supervision, Writing – original draft, Writing – review & editing. **Suchismita Mishra:** Writing – original draft, Writing – review & editing.

### Declaration of Competing Interest

Nil.

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### References

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