



## A Retrospective Observational Study over SARS-CoV-2 Disinfection of Eye

Jesse Gillis \*

Department of Ophthalmology, University of Maryland, Baltimore, USA

### ABOUT THE STUDY

Coronavirus Disease 2019 (COVID-19) is an acute respiratory syndrome that has spread throughout the world. SARS-CoV-2 spreads primarily through respiratory droplets or contact with contaminated surfaces. SARS-CoV-2 differs from SARS-CoV in that it has higher infectivity, more occult infection (and thus a higher risk of transmission by asymptomatic carriers), and a slower clearance rate. Furthermore, by combining with other airborne particles, SARS-CoV-2 may remain in the air for a longer period of time.

According to a report released by the Chinese Centers for Disease Control (CDC), SARS-CoV-2 is sensitive to Ultraviolet Radiation (UVR), 56°C for 30 minutes, 75% ethanol, and chlorine-containing disinfectants with an effective chlorine concentration of 500 mg/L. Because of their ease of installation and use, consumer-grade Ultraviolet Disinfection Lamps (UV lamps) are preferred for SARS-CoV-2 eradication. However, improper use of UV exposure can result in keratitis Ultra Virus Killer (UVK). We compared UVK injury conditions, ultraviolet application, location, and continuous contact time between 237 days period encompassing the Chinese Spring Festival, 4 February 2019 to 12 March 2019 (control group) and 24 January 2020 to 29 February 2020 (crucial period), using data collected by Zhongshan Ophthalmic Center (ZOC). The findings suggest that the general public should be made aware of the potential risks associated with Ultraviolet lamp (UV lamp) disinfection and alternatives for enhanced safety during home quarantine.

The following are the reasons for increased UV exposure from disinfection lamps and the resulting UVK incidence. For starters, many users are unaware that direct eye exposure should be avoided because they have not carefully read the safety instructions. Furthermore, most large e-commerce websites that

sell household UV lamps display these warnings subtly. Second, even when they were aware of the safety precautions, many users were unaware that the UV lamp was turned on, so a visible warning indicating that the instrument is turned on should be placed on the device. We propose that clinicians launch public awareness campaigns about the dangers of UV lamp exposure.

When used for air disinfection, ultraviolet irradiation at 207 nm causes little cellular damage, whereas longer wavelengths can cause DNA damage, UVK, radiation cataract, dermatitis, skin cancer, and mucosal or choroidal melanoma, among other diseases. However, because the wavelength standard of UV disinfection lamps is 254 nm, improper use may result in a fore mentioned complications depending on the level of exposure.

During the epidemic, SARS-CoV-2 was widely distributed in the air and on object surfaces in both the Intensive Care Unit (ICU) and the General Ward (GW), according to a recent study in Wuhan, China. Because some ICU patients require airway opening, the exposure risk is even higher than in the GW, even if a ventilation system is in place. These findings suggest that virus-laden aerosols congregate near and downstream of the patient, and that SARS-CoV-2 can spread up to 4 m. A recent Italian study discovered that SARS-CoV-2 RNA can attach to outdoor particulate matter in pandemic areas, increasing the virus's persistence in the atmosphere.

Hand washing and disinfection of household surfaces are critical for COVID-19 prevention. As a result, governments and the media should inform the public about the most effective methods as well as potential hazards, such as household UV disinfection lamps. Public health organizations should support research into improved and safer disinfection strategies for dealing with public health emergencies.

**Correspondence to:** Jesse Gillis, Department of Ophthalmology, University of Maryland, Baltimore, USA, E-mail: jessegillis@hsr.edu

**Received:** 02-Sep-2022, Manuscript No. JEDD-22-18538; **Editor assigned:** 06-Sep-2022, PreQC No. JEDD-22-18538 (PQ); **Reviewed:** 20-Sep-2022, QC No. JEDD-22-18538; **Revised:** 27-Sep-2022, Manuscript No. JEDD-22-18538 (R); **Published:** 04-Oct-2022. DOI: 10.35248/2684-1622.22.7.185

**Citation:** Gillis J (2022) A Retrospective Observational Study over SARS-CoV-2 Disinfection of Eye. J Eye Dis Disord. 7:185.

**Copyright:** © 2022 Gillis J. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.