

Covid-19 and its Impact on Eye

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Abstract

Covid-19 has been creating a worldwide turmoil since its emergence in 2020. First detected in China, it has engulfed the entire globe. Spanning from lungs to other parts, there are reports of eyes being impacted by Covid-19. This short communication highlights the impacts of covid-19 on human eye and summarises the observed complications caused by SARS-Cov-2.

Introduction

Covid-19 had been detected in Wuhan, China in 2020 [1-5]. Initially, it was not considered as serious. However, with the passage of time, the severity of the disease has caused worldwide panic. Till now, there have been infections of around 5 billion people out of which 6 million people succumbed to Covid-19. Initially, there were not so many mutations. The current scenario has unfurled many new variants of SARS-Cov-2. Amid the variants, some of them are very powerful in terms of causing hospitalizations as well as fatalities. Even after recovery from Covid, people complain about many health issues. There are instances of mortalities due to post-Covid complications. Notably, the number rises with comorbidities [5-12]. Amid the health issues faced by people being infected with SARS-Cov-2, eye is one of the vital organs which also comes under the grip of this. Precisely, SARS-Cov-2 infected persons complain about respiratory problems which eventually transcends down to pneumonia. Importantly, another concern is the emergence of conjunctivitis. In some cases, the SARS-cov-2 had been found to be conjunctival swab, as detected through RT-PCR [1-6]. However, another worrying point is the escalating no of patients suffering from dry eye disease which is an intricate and rapidly advancing condition related to eye. This problem aggravates if left untreated. Even in severe conditions, it turns out to be unresponsive to treatment. Issues such as irritation as well as visual impairment accompany this dry eye disease. Patients often report less productivity and eye fatigue. With the changing lifestyle characterized by desk-jobs as well as long time

exposure to display based devices leads to further exacerbation of this condition. During Covid-19 pandemic, a large population of the world has been forced to remain indoors. With limited movement outside because of lockdown, many were glued to

long time exposure to screen-based devices via use of digital technologies. This caused augmented ocular pressure leading to severe irritations. Accordingly, the pandemic caused this dry eye complications leading to severe aggravations. As per reports, one out of ten Covid-19 patients reported dry eye symptoms. In another report, there were cases of mild, moderate, and severe dry eye while mild dry eye surpassed the other nos. Notably, patients found with moderate dry eye suffered from eye pain, headache due to eye irritation [2-5]. Additionally, other associated ailments included foreign body sensation, tearing. SARS-Cov-2 can be affirmed as the main cause of these such as itching, eye pain, and discharge. On a deeper insight, the main precaution in this ongoing pandemic is the use of face masks. In most cases, the expiratory air directly hits the eye if not worn properly. This indirectly helps in rapid evaporation of eye tear-thereby causing dryness. Patients already having pre dry eye problem encounter more complications. In addition, fear of contamination of hands during pandemic via eye lubrication agents enhances the frequency of eye diseases. Dry eye disease is often found to be difficult to diagnose influencing the wellbeing of an individual. With growing understanding about patterns as well as state of the art amenities, the condition has improved. Severity

of dry eye diseases are characterized by recurrences or chronic eye pain which demand specialized therapeutic treatment—leading to retrieval of ocular surface homeostasis [4-8]. It is equally important to have limited exposure to screen-based technologies as the blinking rate as well as ocular pressure and tear ducts are considerably influenced. Demand of productivity as well as changing work culture during this Covid-19 pandemic compels people glued to desk-top jobs. However, the wellbeing cannot be sacrificed owing to such conditions. A controlled exposure will help in the long run—so that the dry eye severity can be avoided. There should be more awareness of these in the common mass. Summarily, a holistic approach can tackle these conditions arising in eye during this Covid-19 pandemic where synergistic intervention from ophthalmologists help patients taking remedial actions to keep at bay the triggers leading to these worrying eye conditions.

Funding

There is no funding to report this work.

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DOI: [10.32474/TOOAJ.2022.03.000168](https://doi.org/10.32474/TOOAJ.2022.03.000168)



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