Graefe's Archive for Clinical and Experimental Ophthalmology (2020) 258:2569–2570
https://doi.org/10.1007/s00417-020-04838-x

LETTER TO THE EDITOR

COVID-19 and macular edema: a necessarily blindness?

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Received: 7 June 2020 / Revised: 7 June 2020 / Accepted: 8 July 2020 / Published online: 14 July 2020

Dear Editor,

We read with interest the article by Korobelnik et al. highlighting the risk of exposure to Coronavirus Disease 2019 (COVID-19) for both the patient receiving intravitreal injections and healthcare staff [1]. Authors concluded that ophthalmologists should consider simplifying treatment regimens for patients receiving intravitreal injections to reduce the risk of Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) spreading in at-risk patients. Age-related macular degeneration (AMD) and diabetic retinopathy (DR) are worldwide major causes of blindness resulting from alterations in the central part of the retina. Affecting more than 300 million people, AMD and DR are associated with macular edema involving the loss of the central visual field, cecity, and as a consequence, functional handicap [2, 3]. The aging population over 60 years of age is the most affected by AMD and DR [4–6]. This aging population with associated comorbidities is particularly at-risk of death by SARS-CoV-2. This highly contagious viral pneumonia was initially described in Wuhan, Hubei, China, in early December 2019, and rapidly spread around the world as a result of modern transportation [7, 8]. To avoid or reduce a sanitary disaster, worldwide authorities in conjunction with the World Health Organization (WHO) promulgated quarantine status of infected points. The WHO reported several thousand deaths and several hundred thousand cases in Spring 2020, with upward trending [9]. Several countries closed their frontiers, schools, universities, all social gathering places, and confined retirement homes. Public hospitals and private clinics reduced their healthcare activities to promote emergency unit organization, and focused on life-saving procedures. As the media placed great emphasis on the lethal aspect of COVID-19, people are afraid of leaving their homes even if they required ophthalmological attention. These individuals can also be confined officially, by the authorities, with commuting limited to only emergency healthcare access. This is particularly concerning regarding cases for exudative AMD and diabetic macular edema where the emergency notion is exclusively functional. In recent decades, intravitreous injections based on anti-vascular endothelial growth factor (anti-VEGF) or corticoids considerably improved the prognostic outcome of these retinal exudations. However, these therapeutics need regular intravitreous injections in the operating room to maintain effectiveness [10–12]. Without appropriate treatment in short time periods, the visual loss could be definitive by fibrosis of edematous macular and photoreceptors death [13]. Therefore, the SARS-CoV-2 pandemic might also have poor consequences for visual acuity of patients suffering from AMD and DR. Moreover, even if patients could travel to the hospitals, the potential risk of SARS-CoV-2 transmission should be evaluated with care considering exiguous waiting rooms, in confined spaces, and with a need for the use of several instruments. Also, a large number of medical doctors accidentally acquired SARS-CoV-2 infection by contact with oropharyngeal fluids, tears, and conjunctival secretions of patients [14]—particularly for patients with conjunctivitis [15]. Obviously, the public health benefit of the world's efforts to reduce the transmission of COVID-19 is necessary to protect the most vulnerable among us, but we need to consider functional ophthalmological emergency. During the quarantine period involving the confinement of elderly people, ophthalmologists are in an ambiguous situation. They simultaneously need to avoid the therapeutic break of exudative retinal diseases without endangering their own

Comment on: "Guidance for anti-VEGF intravitreal injections during the COVID-19 pandemic."

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health and the health of patients. However, finding a positive benefit-risk balance is very difficult, between evidence for a functional emergency (vision loss) and a high risk of life-and-death emergency (SARS-Cov-2) in vulnerable elderly patients.

Compliance with ethical standards

Conflict of interest The authors declare that they have no conflict of interest.

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