




COMMENT

Implications of COVID-19 for uveitis patients: perspectives from Hong Kong

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In December 2019, a novel coronavirus caused an outbreak of viral pneumonia in Wuhan, China. Despite massive containment measures, COVID-19, caused by the SARS-CoV-2 virus, has now caused a global pandemic, with almost 2 million confirmed cases worldwide and over 120,000 deaths as of 14 April 2020.

Current evidence indicates a greater risk of death in patients of older age with underlying health conditions including diabetes mellitus, chronic lung disease, hypertension, and cardiovascular disease [1].

Uveitis patients are potentially at higher risk of exposure to infections including COVID-19, as they may require systemic immunosuppression to control ocular inflammation, including corticosteroids and other disease-modifying agents such as antimetabolites, calcineurin Inhibitors, alkylating agents, or biologics.

In addition, uveitis patients on active treatment often require frequent outpatient visits to assess their disease progression and to titrate their treatment. Frequent contact with other patients and healthcare workers could also increase their risk of exposure to the coronavirus.

Therefore, it is important to consider the practical management of these patients in the face of the ongoing pandemic, balancing the risks of infection against the risks of uncontrolled uveitis. This study aims to share our local experience in managing patients with uveitis during the COVID-19 pandemic.

Protecting uveitis patients from exposure to coronavirus

General measures for patients in government hospitals in Hong Kong include temperature checking, screening on entry for travel history or contact exposure, and universal masking for all visitors. Public education programs also remind the general public of the need for social distancing, hand hygiene, and self-isolation in case of symptoms.

Within our ophthalmology department at Kowloon Eastern Cluster (KEC), a variety of measures have also been implemented to reduce the risk of coronavirus transmission, as outlined by Lai et al. [2]. Further measures that we may implement for our uveitis patients may include dedicated time slots for patients on immunosuppression to ensure they visit when the clinic is less busy.

New uveitis cases and patients with active disease or those currently titrating medication are still seen face to face, including cases of anterior uveitis, intermediate, posterior, and pan-uveitis. However, follow-up cases with stable disease whether with or without immunosuppression may be considered for teleconsultations instead, to reduce unnecessary clinic visits [3]. Some difficulties with assessing uveitis patients remotely is the lack of clinical examination for objective signs of inflammation; rather, the consultation relies on patients' symptoms and simple examination tools such as visual acuity, Amsler, and color vision testing. Nevertheless, KEC is currently exploring the possibility of implementing teleconsultations for stable cases.

Elective surgery has been deferred in all cases. Urgent surgeries may be carried out, with screening for travel or contact exposure and fever done on admission. High-risk cases will undergo PCR rapid test to exclude COVID infection. Full PPE (personal protective equipment) is used during intubation, if general anesthesia is required.

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Treating patients with active uveitis during the COVID-19 pandemic

Patients with active non-infective uveitis not responding to topical treatment alone may require periocular steroids or systemic immunosuppression to manage their inflammation. The MUST trial showed that patients given systemic therapy had a higher risk of receiving antibiotics for systemic infections (0.36 vs. 0.60 events/person-year, $p = 0.034$) compared with intravitreal steroids, although the risk of hospitalization was not statistically different between the two groups [4].

In view of the current pandemic, consideration may be given to bridging therapy with local or regional corticosteroids, thus delaying starting systemic immunosuppression.

Some diseases such as Behçet's disease may require systemic biologic treatment as first line therapy [5]. These patients may not be suitable for periocular treatment alone. In these cases, patients could consider outpatient therapy to avoid frequent hospital visits, e.g., self-administered subcutaneous injections.

Patients due to start systemic therapy should be considered for screening for SARS-CoV-2 in addition to the usual panel of infection diseases, especially if they display symptoms of COVID-19 or are in close contacts with proven cases.

If a patient tests positive for SARS-CoV-2 and is already on systemic immunosuppression, it may be prudent to taper off their systemic therapy where possible, until they have recovered from COVID-19. A multidisciplinary approach including rheumatologists, ophthalmologists, and internists may be necessary. The World Health Organization have also recommended avoiding systemic corticosteroids in severe cases of COVID-19, unless otherwise indicated [6]. These patients may require topical or periocular treatment in the meantime, depending on their overall clinical condition and uveitis activity.

Continuity of care for these patients is also dependent on a working healthcare system. Healthcare workers should also be protected from exposure to the coronavirus, by limiting clinic attendance numbers to urgent/emergent patients and appropriate use of PPE, and careful hand hygiene and social distancing. If the healthcare system

becomes overwhelmed by COVID-19 cases, ophthalmologists may have to be diverted to care for medical patients, as has happened to our colleagues in Italy, to the detriment of patients with active eye disease.

In the face of the current pandemic, both ophthalmologists and patients should make informed choices regarding treatment options for active uveitis. Interim guidance from global experts of uveitis would be very much welcomed during these uncertain times.

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Compliance with ethical standards

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