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Letter to the Editor

Do we correctly comply with prevention protocols in ophthalmology? About the latest coronavirus epidemic[☆]



¿Cumplimos correctamente los protocolos de prevención en oftalmología?: a propósito de la última epidemia por coronavirus

Dear Editor:

At the time of writing, the epidemic caused by the new coronavirus known as COVID-19 has already affected over 68,000 patients and caused 1600 confirmed deaths in China. In addition, over 680 cases have been diagnosed in 25 countries in Southeast Asia, Europe, North America, Australia and the Middle East. Of all infections, approximately 1700 were health professionals with a total of 6 dead¹ including Li Wenliang, a young ophthalmologist who became known for being the first to report the appearance of this new virus.

This coronavirus is a threat for ophthalmological practice for several reasons: in the first place, due to contact and proximity to the patient during slit lamp examinations. Even though the transmission pathways of COVID-19 are yet being studied, if we compare with other coronavirus (SARS and MERS)¹ contagion occurs through direct contact and through respiratory secretions when establishing contact with the oral, nasal and conjunctival mucosa. It is also a threat for ophthalmological practices due to the shared use of instruments and equipments for patients. During the SARS-Cov epidemic, it was proposed that tears could be a transmission pathway after finding viral RNA in the tears of infected patients.² In the third place, the literature describes conjunctivitis cases caused by other human coronavirus (HCoV-NL63), so that this ocular disease could be the clinic presentation of a COVID-19 infection, although at this time it has not been reported.¹

Due to the epidemic and the growing number of health professionals affected by the coronavirus, a number of recommendations have been established including thorough washing of hands, protection through spectacles and face

masks, and in-depth anamnesis with questions about travel history, systemic symptoms and familial antecedents.

The current epidemic prompts physicians and ophthalmologists to ponder whether we carry out adequate measures to prevent nosocomial infections in our daily clinic practice.

Existing research on hygiene and prevention in ophthalmological clinics has focused on the propagation of adenovirus³ involved in several epidemic outbreaks. The transmission of adenovirus has been associated to a broad range of ophthalmological instruments including, tonometers, lenses, ophthalmoscopes and eyedrops.⁴ All these forms of transmission have brought about the development of preventive measures such as handwashing, disinfection of slit lamps, lenses and tonometers, disposing of tonometer disposable tips or use of single-dose eyedrops. However, do we have standardized protocols for prevention?

According to the most recent guidelines of disease control and prevention centers for hand hygiene, it is recommended to wash hands when they are visibly dirty, after direct contact with patients, bodily fluids and medical instruments and equipment.³ In this regard, ophthalmologists are facing several challenges to achieve excellent hygiene for the hands, involving the multiplicity of instruments used in an examination and the number of patients that can be seen in a practice. According to a study,⁵ a busy ophthalmological practice could involve over 100 opportunities for hand hygiene per day.

In what concerns instruments and equipment, even though it has been reported that adequate cleaning could diminish the risk of propagation of nosocomial infections, there is a lack of protocolized methods for disinfecting slit lamps, lenses, tonometers to name a few. The ideal hygiene

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for a tonometer has been studied in greater depth and the guidelines remain unclear due to the absence of a completely effective disinfection method.³

By way of summary, it can be said that just as for the rest of specialties, the cleanliness of hands and disinfection of instruments are key factors in ophthalmological clinic practice. The coronavirus epidemic has made us aware of the importance of conducting preventive measures and continuing research to definitely establish effective and standardized guidelines for disinfection and prevention of disease transmission.

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REFERENCES

1. Li JO, Lam DSC, Chen Y, Ting DSW. Novel coronavirus disease 2019 (COVID-19): the importance of recognising possible early ocular manifestation and using protective eyewear. *Br J Ophthalmol*. 2020;104:297-8.

2. Loon SC, Teoh SC, Oon LL, Se-Thoe SY, Ling AE, Leo YS, et al. The severe acute respiratory syndrome coronavirus in tears. *Br J Ophthalmol*. 2004;88:861-3.
3. Abbas AA, Lian RR, Afshari NA. Hand hygiene and instrument sanitization in ophthalmology clinics. *Curr Opin Ophthalmol*. 2020;31:28-32.
4. Muller MP, Siddiqui N, Ivancic R, Wong D. Adenovirus-related epidemic keratoconjunctivitis outbreak at a hospital-affiliated ophthalmology clinic. *Am J Infect Control*. 2018;46:581-3.
5. Lee AG. Hand washing in ophthalmology. *Can J Ophthalmol*. 2007;42:791-2.

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