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Ophthalmological Care Management of Cataract Patients During the COVID-19 Times: Perspectives From a Mexican Eye Health Care System

To the Editor:

Since the World Health Organization declared the pandemic by COVID-19 on March 11, 2020, we continue with an ever-increasing number of confirmed cases and deaths around the world.¹ Despite having a strict sanitary protocol, ophthalmologists are highly exposed to being infected not only by symptomatic but also by asymptomatic patients.^{1,2}

Cataract phacoemulsification surgery (CPS) is one of the most common procedures performed worldwide considered among the most successful treatments in medicine.³ However, ophthalmologists worldwide have seen a steep decline in clinical (81%) and surgical volume (97%) when compared to previous years.⁴

The American Academy of Ophthalmologists (AAO) recommended all ophthalmologists to cease providing nonurgent care on March 18, 2020, publishing a list as well of urgent and/or emergent ophthalmic surgeries, including some cataract surgeries.^{4,5}

In our eyecare facility, being a non-profit academic health center (AHC) with approximately 30,000 consultations per year, strict sanitary protocol measures were implemented for everyone. We minimize

the contact of patients by increasing the period of surgical activity, scheduling the patients' arrival in a specific time, and admitting the patients to the operating room with intervals of 45 minutes, instead of being prepared in groups. Furthermore, routine polymerase chain reaction (PCR) testing for SARS-COV-2 was implemented as part of the preoperative evaluation.

We designed a retrospective observational study to review the management of CPS patients from March 1 to December 31, 2020 and compared it to the same period from 2019. We classified surgical management in 3 categories: urgent, emergent, and elective procedures, based on the recommendation of the AAO, the Mexican Society of Ophthalmology (SMO), and the Asia-Pacific Academy of Ophthalmology (APAO) guidelines to prevent COVID-19 infection in ophthalmic practices.^{1,5} Three eyecare centers from the Institute of Ophthalmology and Visual Sciences (TecSalud) participated in this study. The main outcome measure was the rate of reduction in urgent and elective surgeries performed. Priority was given to patients with retinal disease, glaucoma, pediatric patients, and patients with corrected distance visual acuity (CDVA) ($\leq 20/200$) in binocular or CDVA ($\leq 20/60$) in monocular patients.

We found that 240 CPSs were performed in the 2020 compared to the 643 surgeries performed in the same period of the previous year (-62.7% in 2020 compared to 2019, $P < 0.0001$). The mean age of operated patients was 66.5 ± 11.81 years in 2019 and 66.2 ± 12.06 years in 2020. During the study period, 13 cataract surgeries (5.4%) were suspended due to PCR-positive preoperative results for SARS-CoV-2 and there was no case of contagion towards doctors or staff.

As expected, a significant reduction in the amount of CPSs was recorded (-62%), causing delay in the care of this population. With a mean age of our sample

(66.2 ± 12.06 years), similar to Vieira study (71.8 ± 10.3 years) corresponding to a higher risk group, with a higher mortality rate related with COVID-19 disease.³ In addition, since our eyecare facility is an AHC, this steep decrease in surgical volume represented a challenge in the learning curve of resident training. Preoperative PCR testing for all patients who undergo CPS in conjunction with strict hospital protocols might allow tackling the cataract surgery backlog.

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