Home IOP monitoring may be aftereffect of COVID-19 pandemic

Option could prove to enhance safety for both patients and staff

By Lynda Charters; Reviewed by Erika Moxley, MS, and Ze Zhang, MD

OPHTHALMOLOGISTS, LIKE MANY physicians and surgeons worldwide, had their practices dramatically affected during the COVID-19 pandemic. The greatest roadblock was that telemedicine is limited within ophthalmology, leading to a reduction in the in-person examinations required to ensure the best possible patient care.

A survey of members of the American Glaucoma Society (AGS) showed that glaucoma specialists must recognize the changes in response to COVID-19 and modify practices to improve patient outcomes and keep patient and staff safe. Under these circumstances, using devices in the home to monitor IOP may facilitate more virtual visits and decrease the risk of exposure for patients and physicians, according to Erika Moxley, MS, a medical student at Tulane University School of Medicine, and Ze Zhang, MD, assistant professor at Tulane University School of Medicine’s Department of Ophthalmology in New Orleans, Louisiana.

THE SURVEY
The investigators conducted a cross-sectional, anonymous survey of the AGS membership in the United States and Canada to assess the changes in patient volume and patient care, including the adoption of telemedicine, during the pandemic and to determine how patients with glaucoma can be served better in future similar situations.

The survey was disseminated using the AGS list-serv in May 2020. Glaucoma specialists were asked about their practice patterns and changes in practice since the start of the pandemic.

The authors reported that 57 practices completed the survey, 71% of which were from private practices, 27% from a university-based medical center, and 2% from a managed care hospital, for about a 10% response rate. Most respondents were in the northeastern US, followed by the South, Midwest, West, and Canada. The physicians reported that three-quarters of their practices were involved in glaucoma management.

Survey results reflected dramatic decreases in weekly clinical volume by 78% and in surgical volume by 70%.

The authors reported that from March 18 to May 2020, 63% of respondents had not performed any cataract surgeries, 74% had not performed any minimally invasive glaucoma surgeries, 50% had not performed any trabeculectomies and 11% had performed more than 5. 70% had performed at least 1 tube shunt, 39% performed at least 1 cyclophotocoagulation procedure, 30% had changed the types of surgeries they performed due to limitations of follow-up and risk of exposure for patients, and 18% believed that they would make changes.

By May 2020, telemedicine was being incorporated into practice by a majority of the physicians. In addition, approximately 50% of the physicians indicated that to ensure patient and staff safety they were not going to abandon the implemented practice and surgical changes any time soon.

The survey results emphasized how quickly and dramatically the physicians implemented changes in their practices. “Surgeons surveyed were more likely to perform glaucoma surgeries than cataract surgeries during the pandemic, likely due to the vision-threatening nature of glaucoma,” the investigators commented. “When choosing procedures for glaucoma, surgeons reported preferring procedures with a lower risk profile and the need for fewer follow-up visits during the pandemic. It remains to be seen how long-term patient outcomes have been affected.”

They urged physicians to modify their practices with the goal of improving patient outcomes and ensuring safety. “Home IOP monitoring devices may be helpful in allowing more virtual visits, decreasing risk of exposure for all,” the investigators said.

TAKE-HOME

Investigators are urging physicians to adjust their practices with the intent of improving patient outcomes and ensuring safety.

Artificial

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What follows are take-home messages from the findings:

1. Infectious keratitis is one of the most common complications following KPro implantation, developing in approximately 17% of eyes, with an annual incidence rate of 0.035 per year.
2. A preoperative history of cicatrising conjunctivitis and development of persistent epithelial defects following surgery are risk factors for infectious keratitis after KPro implantation.
3. Bacterial keratitis caused by Streptococcus and Staphylococcus species is more common than fungal keratitis, which results most often from Candida species.
4. Failed medical therapy required explanation of the KPro in approximately one-third of cases.
5. Infectious keratitis is associated with increased incidence rates of postoperative complications, including endophthalmitis, idiopathic vitritis, corneal stromal necrosis, retinal detachment, and hypotony.
6. The significantly increased risk of KPro retention failure and complications associated with infectious keratitis underscore the importance of topical antimicrobial prophylaxis, aggressive management of persistent corneal epithelial defects, and prompt diagnosis and treatment of suspected infectious keratitis.

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