



A Lowdown on the Link between Conjunctivitis and COVID-19

by Joanna Lee

In the light of the current COVID-19 situation, diagnosing the pink eye or conjunctivitis has now an added dimension of caution. The alert came about after anecdotal sources and researchers raised the alarm about “the possibility of eye infection and the ocular route as a potential infection source.”¹

This and several other reports^{2,3} prompted the American Academy of Ophthalmology (AAO) to issue guidelines, which included warnings that “the virus can cause conjunctivitis and possibly be transmitted by aerosol contact with conjunctiva.”⁴

The circumstances of its infection mode have put ophthalmologists around the globe on the frontline, and it has been especially poignant ever since the passing of Dr. Li Wenliang, the ophthalmologist from Wuhan who warned of the virus in December 2019. It was believed that he contracted the novel coronavirus from a glaucoma patient.⁵

Coupled with this situation, the AAO also reported in its 2017 study that 60% of people with conjunctivitis have

been wrongly prescribed antibiotics.⁶

This common but ineffective use of antibiotics in conjunctivitis treatment was addressed recently when Co-founder and Director of Operations at OasisEye Specialists and Refractive Surgeon Dr. Khaw Hoon Hoon, spoke in a webinar titled, “Conjunctivitis: Stop the Use of Oral Antibiotics,” during the Centre’s Facebook Live “Eye to Eye Talk Show.” The talk was held as part of an educational series to reach out to fellow ophthalmologists, medical practitioners, opticians, optometrists and the public, during the lockdown in Malaysia.

In a subsequent interview, Dr. Khaw shed light about the nature of this infection in the conjunctiva that can be also found in COVID-19 patients.¹

Differentiating types of conjunctivitis

“The most common type of conjunctivitis is due to viral infection. About 90% of conjunctivitis infections are due to viral origins,” Dr. Khaw said. The second would be bacterial conjunctivitis, which is rare, she added.

These two types are infectious.

“Viral conjunctivitis is usually associated with upper respiratory tract infections (URTI’s). Eyes would be watery, reddish with lots of discharge,” she said. This type also comes when patients have sore throats, colds, flu — thanks to the common cold associated with adenovirus. This is where ophthalmologists and doctors would pay closer attention to their similarities with symptoms found in COVID-19 patients.

Bacterial infections would have signs of thick, yellow-green discharge, and most cases would clear up within one or two weeks without treatment. Bacterial infections are rare but can be commonly seen in young children or babies like the monococcal bacteria, or even in adults in association with sexually transmitted diseases.

“The third type is allergic conjunctivitis which is usually caused by irritants in the air (seasonal allergies in temperate countries), chlorine, cosmetics or any product that has come into contact with the eyes. It usually takes two or three weeks to clear up. They would usually go to family care practitioners or eye doctors,” Dr. Khaw explained.

Allergic conjunctivitis is recurrent and seasonal, yet it is non-infectious and can be treated with antihistamines.

Awareness of its contagious nature

“Because the lacrimal duct in our eye connects to our oral cavity, whenever a person has a URTI — with a sore throat and runny nose — the virus can tract upwards through the duct and infect our eyes,” she said. “From the eye secretions, it can spread through contact like touch.”

Close contact and coughing and sneezing can spread the infection as well. The incubation period for both virus and bacteria for conjunctivitis is about 24 to 72 hours before the eye turns red.

“When one person gets it, usually the family members would be infected if one does not practice proper hygiene,” warned Dr. Khaw.

Just how contagious is conjunctivitis? Dr. Khaw said, “Conjunctivitis is like a “membership” because patients would see us in a group. It would start with the children getting coughs, upper respiratory tract infections, then the mother, or both parents would come in later, then their siblings, domestic helper and then the grandparents,” she explained.

“Spread by touch, it is highly contagious. So, with the coronavirus which is airborne, one can imagine how much more contagious it can be,” she said further.

The talk aimed to address the wrong use of antibiotics for conjunctivitis, especially if it is not of bacterial origin. “Yes, it can have a role in treatment if it’s proven to be bacterial conjunctivitis,” Dr. Khaw said. “Start with topical antibiotics. If no improvement is seen, then only do you give oral antibiotics,” she said.

Physical precautions similar to COVID-19

“Most patients can recover when they see their family healthcare

practitioner, so we usually see only the more complicated ones who haven’t recovered after one or two weeks,” Dr. Khaw shared. “However, we often see conjunctivitis cases daily at our center. Some patients see us because they’ve seen family members subsequently develop complications from conjunctivitis so they’re very concerned about their own condition as well,” she said.

For conjunctivitis patients, some develop complications like severe dry eye, punctate keratitis or pseudomembranous conjunctivitis.

Hygiene precautions taken for coronavirus at eye care facilities would be the same as at any healthcare facility. “We wear masks, gloves, wash our hands, sanitize the slit-lamps after examining conjunctivitis patients. We would tell patients to wash their hands and to avoid touching anything, especially their own eyes and face. Now, the whole world is practicing the same caution.”

Conjunctivitis patients are advised to be isolated — to have their towels and washcloths changed and washed daily, for instance. Hands must also be washed after touching pets. At their center, they have also prepared isolation rooms and protective equipment for staff use.

“That is why this is one of the first topics we address for our series of talks,” said Dr. Khaw, referring to the similarities between the caution and approach towards managing conjunctivitis amidst the coronavirus pandemic, as well as its management to prevent any further spreading. 📄

Editor’s Note:

The “Eye to Eye Talk” Facebook Live Webinar by OasisEye Specialists was attended by members of the Malaysian Association of Practicing Opticians and the Association of Malaysian Optometrists, as well as members of the public.

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Contributing Doctor



Dr. Khaw Hoon Hoon is the co-founder and director of operations of OasisEye Specialists Centre, subspecializing in Cataract and Refractive Surgery. She graduated from Universiti Kebangsaan Malaysia (UKM) and went on to obtain her post-graduate qualification, FRCS Ophthalmology, in Glasgow, U.K. in 2000. Dr. Khaw has vast experience in managing patients with a wide range of eye diseases. She started her career in private practice in 2005 and pioneered in providing ophthalmology services in Pantai Hospital Ampang, Kuala Lumpur, Malaysia. She subsequently moved to Sunway Medical Centre where she ran a busy practice. Her energy, enthusiasm and genuine care for her patients have led to her reputation as the friendly doctor in the area, where she performed many cataract surgeries for the elderly. She became one of the earliest doctors to provide multifocal lens implants. Alongside cataract surgeries, Dr. Khaw is also experienced in performing refractive surgeries, where she previously practiced LASIK and femtosecond laser surgery. Now at OasisEye Specialists, she continues to focus on the newer generation Implantable Collamer Lens (ICL), a novel option for refractive surgery where a corrective lens is implanted into the eye, without permanently damaging any parts of the eye and can be removed if needed.