

COVID-19 OCULAR ASSOCIATIONS IN THE SCIENTIFIC LITERATURE: SYNOPSIS 27

The COVID-19 pandemic began in December and has affected people in nearly every country in the world. We provide a summary of ocular-related associations with COVID-19 in the literature, and we plan to update this as we become aware of new manuscripts. Thus far, it appears that approximately 1-5% of COVID-19 patients experience conjunctivitis and very few COVID-19 patients exhibit virus in their tears.

Chen L, Deng C, Chen X, et al. Ocular manifestations and clinical characteristics of 535 cases of COVID-19 in Wuhan, China; a cross-sectional study.

- Case series
- 3,149 patients recruited but excluded for following reasons:
 - Current hospitalization (1,998)
 - Severe COVID-19 patients (207)
 - Patients without smartphone (48)
 - Unable to contact by telephone (101)
 - Refused questionnaire (260)
- 539 eligible participants
- COVID-19 diagnosis and classification according to coronavirus infection pneumonia diagnosis and treatment guideline, 7th edition (National Health Commission of China)
- Symptoms collected via telephone call with ophthalmologist
- 27 of 535 (5.0%) reported conjunctival congestion
- No difference between those with and without conjunctival congestion for median age, age category, sex, smoking history, exposure history, chronic medical illness, or cardiac and cerebrovascular disease
- The only significant difference in demographics between the groups was occupation; those with conjunctival congestion were less likely to be an employee
- There was no difference in clinical characteristics between patients with and without conjunctival congestion with respect to symptoms, radiologic findings, or laboratory findings
- There were a few differences in ocular characteristics between those with and without conjunctival congestion; those with conjunctival congestion were:
 - More likely to report conjunctival secretion, ocular pain, photophobia, dry eye, and tearing
 - More likely to report eye drops in the past 14 days of ofloxacin, tobramycin, and ganciclovir
 - More likely to report hand-eye contact
- There was no difference between the groups for reading or chronic eye diseases
- Hand-eye contact was positively correlated with conjunctival congestion, even when controlling for age, gender, smoking history, highest temperature, and SARS-CoV-2 detection
 - Indicated a 4 times greater likelihood of conjunctival congestion with frequent hand-eye contact
- Neither wearing glasses or goggles was related to conjunctival congestion
- Conjunctival congestions typically expressed after the onset of clinical symptoms, and it lasted from 2 to 24 days
- Conclusion: “Conjunctival congestion is occasionally associated with COVID-19, and it is related to frequent hand-eye contact.”



AMERICAN ACADEMY
of OPTOMETRY