

Domande valutazione conoscenza lingua Inglese

Text #1

Eye disease and vision loss impact quality of life, independence, mental health, social function, and mortality. Visual impairment affects 7.5% of the United States population and requires frontline providers to diagnose and manage eye conditions. However, the time dedicated to teaching medical students about these conditions has been on the decline for half a century. After the 1910 Flexner report, ophthalmology preserved a small but regular role in United States medical school curricula.

Text #2

The first trend observed in the new data demonstrates how the decreasing curricular time for ophthalmology has slowed, if not plateaued, particularly since the last survey in 2014. We found that required exposure to ophthalmology during medical school in 2018 was very similar to where it was 4 to 5 years earlier, despite the rapid decline of the required clinical ophthalmology clerkship noted in the decades before the 2014 study.

Text #3

The survey results showing that ophthalmology is still required at a large percentage of schools are encouraging. Medical student exposure to inspiring ophthalmologists is the best way to teach the vital ophthalmology skills required of most physicians. Medical education is changing rapidly, and ophthalmology must be an active participant in this change.

Text #4

The primary mission of the American Board of Ophthalmology (ABO) is to protect the public. Achieving this goal depends on working successfully with multiple constituents, the most important of whom are those who seek to become board certified (candidates) and those who have already earned the credential (ABO diplomates). The coronavirus 2019 (COVID-19) pandemic has created challenges and opportunities with both groups.

For more than a century, passing an in-person examination has been the final step in achieving ABO certification. For decades, this assessment, the oral examination (OE), has been administered in hotels by a large cadre of volunteer practicing ophthalmologists. For years, the ABO has been looking for a suitable site where the examination could be conducted in an office-like setting rather than in hotel rooms.

Text #5

The ABO has been fortunate to be able to continue its work during the pandemic without interruption, in part because of the transition in 2018 from a physical office in Bala Cynwyd, Pennsylvania, to a virtual office model in which staff members work from home. Although the move originally was made to minimize expense with the goal of keeping ABO fees as low as possible, the decision proved to be fortuitous.

Most of the ABO's efforts since early March have been devoted to providing an expedient pathway to certification for the candidates whose OE was cancelled and, importantly, to keep them apprised of progress with weekly communiques that are sent by e-mail and posted on the ABO's website. Early on, we surveyed the candidates about 3 options: (1) rescheduling the OE for the autumn of 2020, (2) postponing the examination to the spring of 2021, or (3) attempting to convert



the OE to a form that could be administered online, with the disclosure that no medical certifying board has yet done so successfully. Approximately two thirds of candidates responded to the survey, with nearly 80% preferring a virtual examination. Notably, 90% of respondents indicated a willingness to participate in a pilot project when available.

Text #6

Another potential source of confusion is publication descriptors ranging from “ocular manifestations” to “findings” to “symptoms” disclosed in medical records and findings from penlight examination. Only 1 article explicitly describes biomicroscopic slit-lamp examination of a COVID-19 patient who progressed to hospital admission and development of symptomatic bilateral “follicular conjunctivitis.” Another article describes SARS-CoV-2 in “tears and conjunctival secretions” of the 1 patient with conjunctivitis. In yet another study, it is unclear by what means “ocular abnormalities” were found in “one third of patients [or 12/38] with COVID-19.” The preponderance (8/12) of patients were classified as having “severe” and “critical” disease, defined as respiratory failure, shock, or multiorgan failure. Abnormalities like “conjunctival hyperemia, chemosis, epiphora, or increased secretions” are not uncommon in ventilated patients.

Text #7

The discovery of SARS-CoV-2 tears or conjunctiva is not surprising. Severe acute respiratory syndrome coronavirus, 6 human coronavirus NL63, and other viruses (e.g., adenovirus) provide examples of ocular tropism of respiratory viruses. Possible reasons include anatomic linkage, structure and distribution of cellular receptors, and immunologic interdependence. Experiments strongly suggest that the eye is a potential entry portal for these viruses and emphasize the importance of masking and eye protection for ophthalmologists, who sit far closer to patients than the 6 feet recommended by the Centers for Disease Control and Prevention for social distancing. Severe acute respiratory syndrome coronavirus-2 may end up in tears and conjunctiva because of such direct inoculation, migration of an upper respiratory tract infection, or hematogenous involvement of the lacrimal gland. However, further study is needed to determine whether the viral load in tears or conjunctiva is enough to transmit infection.

Text #8

Rashomon is set during a time of social crisis; autonomous provincial political and military powers were undermining the central government in 12th-century Japan. The film’s director used this backdrop to reveal extremities of human behavior. The coronavirus pandemic has exposed geopolitical differences in preparation and approach to COVID-19: screening, contact tracing, self-quarantine, masking, and providing personal protective equipment for healthcare workers. *New Yorker* film critic Pauline Kael described *Rashomon* as the “classic film statement of the relativism, the unknowability of truth.” Other viewers have insisted there must be 1 true account of the crime, discoverable if one diligently sifts through the clues. Two truths may emerge here: the presence of SARS-CoV-2 in ocular tissue or secretions would not be surprising, and ophthalmologists are at increased risk for infection without adequate protection.

Text #9

In the 1950 Japanese movie *Rashomon*, 4 characters present 4 completely different accounts of a sordid crime. Over time, the film’s title has become part of the lexicon to describe the relativity of truth and the unreliability, indeed subjectivity, of memory. Science should be able to provide accurate and reliable explanations. Therefore, emerging reports on coronavirus disease 2019 (COVID-19) and tear or conjunctival involvement may give readers reason to pause.

Text #10

Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), responsible for the current pandemic of corona virus disease 2019 (COVID-19), is highly contagious and has posed a tremendous threat to global public health. Recent studies have reported that this novel coronavirus strain may produce conjunctival findings and can be detected in tears and conjunctival secretions. An implication is that there may be a potential hazard to healthcare workers, especially the ophthalmologists, who perform examination in close proximity to COVID-19 patients and may come in contact with tears or conjunctival secretions. In December 2019, Wuhan, China, became the epicenter of the COVID-19 pandemic, and we undertook a cross-sectional study to characterize ocular symptoms, examine conjunctival swabs for presence of SARS-CoV-2 RNA, and determine whether a correlation existed between ocular findings and duration of disease.

Text #11

From January 17 through February 16, 2020, a total of 121 patients who had been managed in the Renmin Hospital of Wuhan University were recruited. Based on the standard of the National Health Commission of China,⁴ all patients were confirmed COVID-19 cases with at least 1 positive result for SARS-CoV-2 from respiratory specimens, such as nasopharyngeal swabs or sputum, or other clinical specimens, such as blood or stool, using real-time reverse-transcriptase polymerase chain reaction (RT-PCR) or genetic sequencing, or positive results for specific antibody through the serologic test. Clinical disease was classified as mild, moderate, severe, or critical based on disease severity. The study was approved by the ethics committees of Renmin Hospital of Wuhan University and was conducted with strict adherence to the tenets of the Declaration of Helsinki.

Text #12

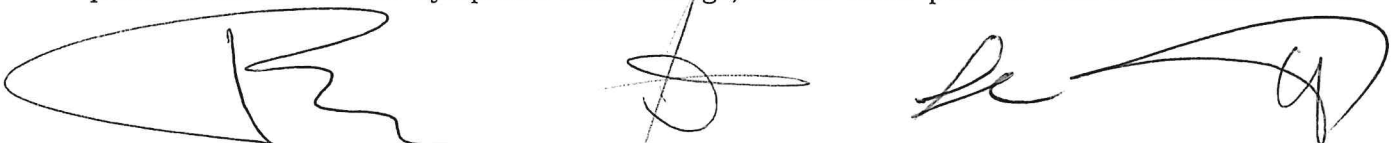
We used the paired chi-square test (McNemar-Bowker test) to compare the proportion with positive results for SARS-CoV-2 RNA between nasopharyngeal and conjunctival swab samples. The Fisher exact test was used to analyze the statistical correlation between the proportion of patients with ocular symptoms and conjunctival SARS-CoV-2 detection. For the ordinal categorical variable, the Spearman rank correlation analysis was performed to assess the statistical correlation between the proportion of patients with ocular findings and the duration of disease. All statistical analyses were performed using the statistical software package IBM SPSS Statistics version 26.0 (IBM, Chicago, IL).

Text #13

Our study has several limitations. First, because of the risk to healthcare workers and the acuity of the condition of patients, we were unable to perform biomicroscopic slit-lamp examination. Second, the conjunctival swabs were collected at only 1 time point. Recent data obtained from an animal study⁶ suggest that the presence of the virus may be transient in conjunctiva after ocular conjunctival inoculation. Therefore, the single time point for conjunctival sampling and a wide range of time from diagnosis to sampling may have reduced recovery rates. This may be compounded by the possible false-negative rate of real-time RT-PCR assays. Finally, the study is limited by the small number of patients.

Text #14

In conclusion, this study characterizes the ocular symptoms in COVID-19 patients, reports the proportion of samples with positive conjunctival and nasopharyngeal RT-PCR results from patients with COVID-19, and incorporates the duration of disease into the analysis. A minority of the 121 patients showed ocular symptoms and findings, which when present were mild. Three of 121



patients showed positive RT-PCR results from conjunctival swabs. The appearance of symptoms and penlight findings or the results of positive conjunctival swab analysis were not correlated significantly with the duration of disease. One patient showed both symptoms and positive conjunctival swab results and was classified as a severe or critical case; 2 patients showed no symptoms but revealed positive swab results, with one classified as a severe or critical case and another was classified as a mild or moderate case.

Text #15

The potential for transmission of the 2019 novel coronavirus (SARS-CoV-2) through ocular fluid is a concern for ophthalmologists.

In this issue, Jun et al, ([https://www.aaojournal.org/article/S0161-6420\(20\)30311-0/fulltext](https://www.aaojournal.org/article/S0161-6420(20)30311-0/fulltext)) from the National Health Care Group Eye Institute in Singapore, report that they were unable to detect SARS-CoV-2 in the tears of 17 patients diagnosed with COVID-19. They conclude the risk of transmission of SARS-CoV-2 through tears likely is low. Although the results are reassuring, risks to ophthalmologists remain because a few caveats must be considered. None of the study participants had conjunctivitis on presentation. One patient sampled developed conjunctival injection and chemosis on day 17 of hospitalization. In addition, most of the samples were obtained during the second and third weeks of symptoms, when viral load is known to have decreased precipitously. In a separate study that evaluated conjunctival swabs of 30 patients with COVID-19 pneumonia in China, only 1 patient demonstrated conjunctivitis, and those swabs showed positive results for SARS-CoV-2 by reverse-transcriptase polymerase chain reaction analysis.

