







Editorial II

High Risk of COVID-19 Infection for Head and Neck Surgeons

Marco Aurélio Kulcsar¹  Fabio L. Montenegro¹  Sergio S. Arap¹  Marcos Roberto Tavares¹ 
Luiz Paulo Kowalski¹ 

¹ Head and Neck Surgery Department, Faculdade de Medicina da Universidade de São Paulo, São Paulo, SP, Brazil

Int Arch Otorhinolaryngol 2020;24(2):e129–e130.

The epidemic of a serious respiratory disease caused by a new coronavirus virus that started in Wuhan (Hubei province), China, was first reported to the local World Health Organization (WHO) office on December 31, 2019. The virus and disease were labeled as Severe Acute Respiratory Syndrome (SARS-CoV-2) coronavirus 2. The disease caused by this virus was later called COVID-19.¹ It was declared an international health emergency by WHO on January 30, 2020.² On February 26, 2020, the Brazilian Ministry of Health confirmed the first case in Brazil.³ In less than 4 weeks, more than 1,100 cases and 18 deaths were registered in the country.⁴

More than 80% of the patients with COVID-19 are asymptomatic or oligosymptomatic. Approximately 15% require hospitalization and 3% to 5% evolve to severe clinical conditions requiring ventilatory support in an intensive care unit (ICU). The mortality rate varies from 0.3 to 8%, with a higher risk for the elderly, hypertensive and diabetic patients.^{3,5,6} On March 20, 2020, we have an accelerated pandemic that puts almost the entire world population at risk, with more than 330,000 cases and more than 14,000 registered deaths.⁷

The first death of a doctor who was a victim of COVID-19 in Wuhan was an otolaryngologist on January 20, 2020.⁵ The death from the disease of the ophthalmologist Li Wenliang, who since December 2019 tried to alert the authorities about a serious disease similar to SARS (another serious coronavirus) and was exonerated by the Chinese government, occurred on February 6 and revolted the world.^{8,9} The first recorded case in Wuhan of contamination by a surgical team is frightening. All 14 participants in an endonasal video-assisted hypophysectomy were contaminated.¹⁰ Given the high exposure to aerosols during diagnostic endoscopic procedures or surgeries, many of the doctors who died in China are otorhinolaryngologists or ophthalmologists.¹¹ According to Patel et al,¹² many Italian

and Iranian otorhinolaryngologists are infected and in isolation. Fatalities have been reported not only among elderly doctors, but also young people, including an Iranian resident doctor of undisclosed age.

A significant viral load is concentrated in the upper airways, being a probable cause of the high rate of infection and many deaths among otolaryngologists, head and neck surgeons, ophthalmologists and Chinese endoscopists in these 3 months of the epidemic.^{11–14} The same high risk has been recorded in Europe. Due to the contamination of this group of doctors, it can be observed that, in addition to the symptoms previously described, anosmia is a frequent finding.^{15,16}

Thus, it is mandatory to alert all professionals who need to do head and neck exams (including eye exams) of patients, with or without access to upper aerodigestive pathways (videolaryngoscopy, for example), rehabilitation procedures or even hygiene of this region (tracheostomies, dressings). Given the high professional risk, the Regional Council of Medicine of the State of São Paulo recommends that surgery and elective consultations be suspended, except for those of an oncological nature, in addition to urgencies and emergencies.¹⁷

In cancer cases, especially in patients with carcinomas of the upper aerodigestive tract, where the treatment of choice is surgical, it is important to investigate the contagion of COVID 19. The Stanford University team suggests that an examination be performed 2 days before the operation.¹² Not all surgeries can be rescheduled. During this period, special attention should be given to tracheostomies and cervicofacial trauma. Meticulous protective measures must be taken for all team members as well as the operating room, with the execution of the procedure in a negative pressure room and high-efficiency particulate air (HEPA) filter in the anesthesia respirator car and the use of personal protective equipment.¹⁸

Address for correspondence
Luiz Paulo Kowalski, MD, PhD,
Department of Head and Neck
Surgery, Universidade de São
Paulo, Faculdade de Medicina, Av.
Dr. Enéas de Carvalho Aguiar
255–8° andar, sala 8174, São
Paulo, SP, 05403-000, Brazil
(e-mail: lp_kowalski@uol.com.br).

DOI <https://doi.org/10.1055/s-0040-1709725>.
ISSN 1809-9777.

Copyright © 2020 by Thieme Revinter
Publicações Ltda, Rio de Janeiro, Brazil

License terms



With regard to individual protection, the Brazilian Society of Head and Neck Surgery specified how the protection for surgical procedures should be. The “Personal Protective Equipment” (PPE) for all professionals involved in the procedure are mask type N95 or PFF2, glasses or face shield, disposable gloves, waterproof disposable apron with a minimum grammage of 20¹⁹. It should be emphasized that the procedures for dressing up and especially for undressing are standardized to avoid the risk of infection. Many infections by health professionals occurred due to the lack of clearance, taking the contaminated hand to the face when removing the mask.¹⁹ There are several guidelines and tutorials on the internet.

During this pandemic caused by a virus with an intense airway permeability, it is necessary to increase attention with the use of protective measures to reduce the risks for specialists in head and neck surgery and otolaryngology.

Conflict of Interests

The authors have no conflict of interests to declare.

References

- World Health Organization. WHO Director-General's opening remarks at the Mission briefing on COVID-19 - 12 March 2020 [Internet]. [cited 2020 Mar 24]. Available from: <https://www.who.int/dg/speeches/detail/who-director-general-s-opening-remarks-at-the-mission-briefing-on-covid-19-12-march-2020>
- World Health Organization. Rolling updates on coronavirus disease (COVID-19) [Internet]. [cited 2020 Mar 24]. Available from: <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/events-as-they-happen>
- Brasil. Ministério da Saúde. Brasil confirma primeiro caso da doença [Internet]. [cited 2020 Mar 24]. Available from: <https://www.saude.gov.br/noticias/agencia-saude/46435-brasil-confirma-primeiro-caso-de-novo-coronavirus>
- DW. Deutsche Welle. Coronavírus: Número de casos confirmados no Brasil passa de mil [Internet]. [cited 2020 Mar 24]. Available from: <https://www.dw.com/pt-br/coronav%C3%ADrus-n%C3%BAmero-de-casos-confirmados-no-brasil-passa-de-mil/a-52869452>
- Chan JYK, Wong EWY, Lam W. Practical Aspects of Otolaryngologic Clinical Services During the 2019 Novel Coronavirus Epidemic: An Experience in Hong Kong. *JAMA Otolaryngol Head Neck Surg* 2020. Doi: 10.1001/jamaoto.2020.0488
- Wu Z, McGoogan JM. Characteristics of and Important Lessons From the Coronavirus Disease 2019 (COVID-19) Outbreak in China: Summary of a Report of 72–314 Cases From the Chinese Center for Disease Control and Prevention. *JAMA* 2020. Doi: 10.1001/jama.2020.2648
- World Health Organization. Coronavirus disease 2019 (COVID-19) Situation Report – 58 [Internet]. [cited 2020 Mar 24]. Available from: https://www.who.int/docs/default-source/coronavirus/situation-reports/20200318-sitrep-58-covid-19.pdf?sfvrsn=20876712_2
- BBC News. Li Wenliang: Coronavirus death of Wuhan doctor sparks anger [Internet]. [cited 2020 Mar 24]. Available from: <https://www.bbc.com/news/world-asia-china-51409801>
- New York Post. China exonerates doctor who warned of impending coronavirus outbreak [Internet]. [cited 2020 Mar 24]. Available from: <https://nypost.com/2020/03/20/china-exonerates-doctor-who-warned-of-impending-coronavirus-outbreak/>
- China Newsweek [Internet]. [cited 2020 Mar 24]. Available from: <https://view.inews.qq.com/a/20200125A07TT200?uid=&devid=BDfE70CD-5BF1-4702-91B7-329F20A6E839&qimei=bdfe70cd-5bf1-4702-91b7-329f20a6e839>
- Bloomberg News. Europe's Doctors Repeat Errors Made in Wuhan, China Medics Say [Internet]. [cited 2020 Mar 24]. Available from: <https://www.bloomberg.com/news/articles/2020-03-17/europe-s-doctors-getting-sick-like-in-wuhan-chinese-doctors-say>
- Patel ZM, Hwang PH, Nayak JV, et al. Stanford University School of Medicine. Departments of Otolaryngology-H&N Surgery and Neurosurgery. Available from: <https://www.enttoday.org/article/otolaryngologists-may-contract-covid-19-during-surgery/>
- Ran L, Chen X, Wang Y, Wu W, Zhang L, Tan X. Risk Factors of Healthcare Workers with Corona Virus Disease 2019: A Retrospective Cohort Study in a Designated Hospital of Wuhan in China. *Clin Infect Dis* 2020:ciaa287. Doi: 10.1093/cid/ciaa287
- Lai THT, Tang EWH, Chau SKY, Fung KSC, Li KKW. Stepping up infection control measures in ophthalmology during the novel coronavirus outbreak: an experience from Hong Kong. *Graefes Arch Clin Exp Ophthalmol* 2020. Doi: 10.1007/s00417-020-04641-8
- Zou L, Ruan F, Huang M, et al. SARS-CoV-2 Viral Load in Upper Respiratory Specimens of Infected Patients. *N Engl J Med* 2020; 382(12):1177–1179. Doi: 10.1056/NEJMc2001737
- Radio Farda. Loss of Sense of Smell Among Iranians Coinciding With Coronavirus Epidemic [Internet]. [cited 2020 Mar 24]. Available from: <https://en.radiofarda.com/a/loss-of-sense-of-smell-among-iranians-coinciding-with-coronavirus-epidemic/30478044.html>
- Conselho Regional de Medicina do Estado de São Paulo (Cremesp). Orientações sobre Coronavírus [Internet]. [cited 2020 Mar 20]. Available from: <http://www.cremesp.org.br/?siteAcao=Noticias&id=5581>
- Ti LK, Ang LS, Foong TW, Ng BSW. What we do when a COVID-19 patient needs an operation: operating room preparation and guidance. *Can J Anaesth* 2020. Doi: 10.1007/s12630-020-01617-4
- Sociedade Brasileira de Cirurgia de Cabeça e Pescoço. Traqueostomias e Manejo da Via Aérea em Casos Suspeitos ou Confirmados de COVID-19 [Internet]. [cited 2020 Mar 20]. Available from: <https://sbccp.org.br/traqueostomias-e-manejo-da-via-aerea-em-casos-suspeitos-ou-confirmados-de-covid-19/>