2019 Novel Coronavirus Outbreak: SOS Alert for Dentists

GS Vidya[1], Shankargouda Patil[2], A Thirumal Raj[3]

On January 31, 2020, novel coronavirus (nCoV), a zoonotic virus yet to be identified into the taxonomy, created a powerful ripple through mankind that the World Health Organization has declared a global health emergency.[1] This is definitely not the first time that an alarm has been rung by this family of viruses. Epidemic impact of severe acute respiratory syndrome (SARS) due to SARS CoV and Middle East respiratory syndrome (MERS) by MERS CoV has engraved their place in the scientific literature.[2] In general, CoV is known to cause respiratory diseases in humans and accounts for one-third of common cold infections.[3] The current outbreak by 2019 nCoV in the Chinese city of Wuhan began in December 2019, has infected nearly 102,188 with 3,491 deaths reported as of March 7, 2020, and has spread to nearly 92 countries.[1,4] An assumed incubation period between 2 and 14 days, with flu-like symptoms, may progress into severe pneumonia or acute respiratory distress syndrome which may be the reason for mortality.[5,6]

Scientists are striving hard with the assemblage of knowledge related to previous epidemics to find an answer. The biggest challenges faced by health-care professionals are its recognition, providing treatment, and preventing transmission of this virus. Aerosols are suspected to be a major route of spread. Wearing a mouth mask is one of the best and early modes of precaution. Asymptomatic but infected individuals are thought to be contagious. Recognizing them is a task; furthermore, can they be the reason for the spread of infection? When most of the facts and figures like recognition of cases are yet to be ascertained, we need to contemplate a few questions. Do these mild cases pass through as flu? Is the seriousness of the situation acknowledged when we come across a severe case? Can this be a reason for an outbreak?

Respiratory tract infections are a potential widespread global disease due to its varied etiology, pathogenesis, and progression. Dentists and saliva are best friends. Exposure to and with each other is inevitable. Aerosols, saliva exposure, the mode of treatment administered, being the mouth, which may harbor microorganisms, puts them at a high risk of exposure. Dental treatments are deferred in symptomatic cases unless it is an emergency, but what about the unrecognized asymptomatic or mildly infected cases who may come in direct contact with the dentists? What about the clinic environment or the instruments used, could they become a potential source of infection as they host the aerosol droplets and saliva? Do the dentists become a carrier or yield to it? Does such an environment harbor a risk to transmit the infection to other patients?

[1]Private Dental Clinic, Bengaluru, Karnataka, India

[2]Department of Maxillofacial Surgery and Diagnostic Sciences, Division of Oral Pathology, College of Dentistry, Jazan University, Jazan, Kingdom of Saudi Arabia

[3]Department of Oral Pathology and Microbiology, Sri Venkateswara Dental College and Hospital, Chennai, Tamil Nadu, India

Corresponding Author: Shankargouda Patil, Department of Maxillofacial Surgery and Diagnostic Sciences, Division of Oral Pathology, College of Dentistry, Jazan University, Jazan, Kingdom of Saudi Arabia, Phone: +966 507633755, e-mail: dr.ravipatil@gmail.com

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Such an outbreak should be an SOS alert to the dentists as exposure to such an environment is ineludible. Although basic infection control protocol suffices, the gravity of its implementation cannot be undermined during such circumstances. Therefore, the duty lies in the hand of health-care workers to not only administer treatment but also emphasize on preventive measures to curb the risk of cross-infection and transmission.

REFERENCES

1. Lewis D, Coronavirus outbreak: what's next? Experts weigh up the best- and worst-case scenarios as the World Health Organization declares a global health emergency. Nature news explainder, 31 Jan 2020. Available at: https://www.nature.com/articles/d41586-020-00236-9.
2. Fehr AR, Perlman S. Coronaviruses: an overview of their replication and pathogenesis. Coronaviruses. New York, NY: Humana Press; 2015. pp. 1–23.
3. Mirza MB, Bhagat TV, Inderjit MG, et al. Middle East respiratory syndrome and precautions to be taken by dental surgeons. J Health Spec 2016;4(2):105–109. DOI: 10.4103/1658-600X.179821.
4. Max Roser and Hannah Ritchie - "Coronavirus Disease (COVID-19)". 2020. Published online at OurWorldInData.org. Retrieved from: 'https://ourworldindata.org/coronavirus' [Online Resource].
5. Huang C, Wang Y, Li X, et al. Clinical features of patients infected with 2019 novel coronavirus in Wuhan, China. Lancet 2020;395(10223):497–506. DOI: 10.1016/S0140-6736(20)30183-5.
6. Chen N, Zhou M, Dong Jr X, et al. Epidemiological and clinical characteristics of 99 cases of 2019 novel coronavirus pneumonia in Wuhan, China: a descriptive study. Lancet 2020;395(10223):507–513. DOI: 10.1016/S0140-6736(20)30211-7.