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Original Research Paper

Dental Science

THE IMPACT OF LOCKDOWN ON DENTISTRY IN COVID-19 :AN ORAL PHYSICIAN PERSPECTIVE

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ABSTRACT The coronavirus (COVID-19) has impacted dental health professions and systems in unusual way .The role of dentist in preventing the transmission of COVID-19 is decisively important. There have been widespread concerns within the profession due to their work in close proximity to the mouths of patients. While all routine dental care has been suspended in India experiencing COVID-19 disease during the period of pandemic, the need for organized urgent care delivered by teams provided with appropriate personal protective equipment takes priority. Dental professionals felt ethical duty to reduce routine care for fear of spreading COVID-19 among their patients and beyond, but were understandably concerned about the financial consequences. Amidst the explosion of information available online and through social media, it is difficult to identify reliable research evidence and guidance, but right decisions and choices must be made.

KEYWORDS : Covid-19, dental professional, lockdown

Introduction:

Coronavirus has a global reach, is in over 200 countries and in all 50 states, causing unparalleled havoc in every phase of our lives1. COVID-19, the disease caused by SARS-cov-2, is highly contagious with a rapid velocity of transmission2. The disease appears to have a fatality rate that is lower than its predecessors, SARS-cov-1 and MERS-cov-2, and the majority of the fatality is in elderly patients and in patients with pre-existing underlying chronic diseases2. However, there are innumerable young and healthy patients succumbing to the disease, heightening the fear of this disease.

Routes of transmission:

The transmission of the virus is mainly through inhalation/ingestion/direct mucous contact with saliva droplets; it is also critical to remember that the virus can survive on hands, objects or surfaces that were exposed to infected saliva3. The modes of spread include droplets, surface contact, fecal-oral route and by aerosolization during procedures4,5. An increasing prevalence of asymptomatic carriers and transmission by asymptomatic carriers have been reported. On 15 March 2020, the New York Times published an article entitled "The Workers Who Face the Greatest Coronavirus Risk", where an impressive schematic figure described that dentists are the workers most exposed to the risk of being affected by COVID-196. It is essential to give clear and easy guidelines to manage dental patients and to make working dentists safe from any risk. As of now, the best protection for the dental professional is a heightened sense of awareness, avoiding unnecessary contact with patients that may have coronavirus, the use of appropriate personal protective equipment, and increased attention to personal hygiene[7].

Recommendations for Dental Practice

We are familiar in dentistry with the principle of universal precautions for cross infection control based on an understanding that we may not know whether a patient has the potential for disease transmission or not. During the initial phase of a pandemic, when a vaccine is not available, personal protective equipment (PPE) plays a major part in disease control8. There is an urgent need for organized emergency dental care delivered by teams provided with appropriate PPE9. This also allows for redistribution of PPE to urgent care when there is inevitably an initial shortage and distribution challenge. Timely and major reorganization of dental care services is challenging. In order for dentistry to do its part to mitigate the spread of COVID-19, the IDA recommends dentists nationwide postpone elective procedures . Concentrating on emergency dental care will allow us to care for our emergency patients and alleviate the burden that dental emergencies would place on hospital emergency departments[10].

Telescreening to identify patients with suspected or possible COVID19 infection can be performed remotely at the time of scheduling appointments11 . The 3 most pertinent questions for initial screening should include any exposure to a person with known or suspected COVID-19 presentation, any recent travel history to an area with high incidence of COVID-19 or presence of any symptoms of febrile respiratory illness such as fever or cough. A positive response to either of the 3 questions should raise initial concern, and elective dental care should be deferred for at least 2 weeks (Note: As mentioned previously, the incubation period for SARS-CoV-2 can range from 0–24 days). These patients should be encouraged to engage in self-quarantine and contact their primary care physician by telephone11.

Simple home care dental instructions to avoid immediate consultation[12]

- Avoid consuming food that is too hot or too cold if you are sensitive so that the pain does not aggravate. Diet control is crucial.
- One should also avoid applying pain relief balms topically or it can increase the swelling.
- Brush your teeth twice daily or use medicated mouthwashes. There are some pastes for tooth sensitivity also that can be used to keep the infection under control meanwhile, till the time you visit a dentist.
- Wash your hands frequently with soap and water or an alcohol-based hand sanitizer. Clean the toothbrush properly after use to ensure it is not contaminated.
- The most common dental issue is toothache, for which paracetamol can be taken. Consult the dentist if there is uncontrolled pain who can recommend the required cure.

For Indian patients, Installation of Aarogya Setu app in the patients mobile is must, so that initially screening and risk assessment can be done.13 As health care professionals, it is up to dentists to make well-informed decisions about their patients and practices. One concern is that with the suspension of routine dental care, more patients than usual could need admission for the management of acute dental infections that threaten the airway and require intensive care.

Patients with substantial swellings can progress to life-threatening emergencies, which can increase risks in the setting of reduced health-care availability14. For such patients, extractions of the causative pathogenic teeth should be prioritized over restorative rescue and close follow-up should be instigated as locally appropriate. This approach has many benefits, including stewardship of antimicrobials, but is a deviation away from routine dentistry that should be thoroughly discussed with patients. Decisions on undertaking treatment should therefore be made with appropriate patient consent. Clinicians might wish to follow up patients digitally (through video calls), if appropriate, to ensure patient safety, but also to minimize repeated patient contact. Testing for coronavirus disease 2019 (COVID-19) in dental professionals should be undertaken with the same high priority as that of medical healthcare workers in hospitals14.The risk of a dental practitioner being positive for COVID-19 and potentially infecting patients attending emergency dental services should not be underestimated. Proactive and preventive measures need to be established as mainstay protocol to contain the spread of the virus.

An oral physicians perspective:

Like other professions, Dentistry too have been affected to some great extent. The Dentists will not be able to work on patients for at least 2-3 months after lifting of lockdown. Due to abundant presence of Corona virus in nasopharyngeal and salivary secretions3,5, it would be impossible to treat the patients as most of dental procedures produce aerosols7 and this virus is known to transmit through droplets9. Due to speedily increasing of Dental colleges and over numbered Dental professionals, many clinics were running from hand to mouth. To this added the pandemic, which increased the dilemma of private dental practitioners, who are completely dependent on their income from the dental clinics and are most awful hit due to lockdown. The monthly expenses such as rent of the clinics, salary of the employees, house maintenance, pending bills and loans from the bank need to be taken care. The most important thing to look into is as soon as lockdown is lifted, the public can start the work with mouth masks on, the shops will open, factories will start production, people can travel and everything will be on track but a dental surgeon can't treat a patient with a patient's having his mouth mask on. If any asymptomatic carrier walks in for dental treatment, then no level of precaution can stop splatter of saliva and aerosol production while scaling, cavity preparation with airotor, use of reduction hand piece or any other aerosol producing procedure is undertaken. The complete area of the clinic will get infected and will expose dentist, staff and all the patients to the risk of getting infected. Hence it would be very difficult for dentists to undertake any procedure in patient's oral cavity for some months even after the lockdown is lifted. Most others estimated they had money in the bank to keep going for another three months at most if the lockdown which is preventing the vast majority of dentists from providing anything but free telephone advices continues that long. some people are going to find it even harder to visit a dentist when this is all over because of corona fears. And it's not just a case of starting up again afterwards , because so many are going to be in debt that they may not want to pay for treatment or to carry on with monthly payments for dental plans. It is worth noting that case presentations can be dynamic, and there is a good chance that dental practices might treat some of the patients with asymptomatic COVID-19 infections since the incubation period can range from 0 to 24 days7 and most patients only develop mild symptoms. Every patient should be considered as potentially infected by this virus, and all dental practices need to review their infection control policies, engineering controls, and supplies.

CONCLUSION

Dental health care professionals have the sense of duty to protect the community and maintain high standards of care and infection control. Due to unique characteristic of dental procedures, the standard protective measures in daily clinical work are not effective enough to prevent the spread of covid 19 especially when patients are in the incubation period, are unaware they are infected or choose to conceal their infection.

The treatment of covid-19 is fundamentally based on containment measures and reversion of this pandemic growth is possible. Single PPE for per patient in India is not at all cost effective in dental sitting, hence for the safety of our patients and that of our team members , it's better to close down our clinics for coming few weeks. This new rising SARS-CoV-2 threat could become a less pathogenic and more common infection in the worldwide population. Indeed, it is predicted to persist in our population as a less virulent infection with milder symptoms, if it follows the same evolutionary pattern of the other coronavirus infections (i.e., SARS-CoV and MERS-CoV). Thus, it is important to make informed clinical decisions and alert the public to prevent panic while promoting the fitness and well-being of our patients during these demanding times. The wise practitioner will use this analysis as a starting point and continue to update themselves with useful online information as this outbreak continues. We also need to look out for our own mental health and welfare, and that of each other.

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