

IMPACT ON TRAUMATIC DENTAL INJURIES ATTENDANCE TO PEDIATRIC DEPARTMENT IN GOVERNMENT DENTAL COLLEGE SRINAGAR DURING COVID-19 PERIOD: A RETROSPECTIVE STUDY**Dr. Mohamad Arshid Khanday*¹ M.D.S; and Dr. Nazia Lone,² M.D.S.**¹Registrar in Department of Pedodontics and Preventive Dentistry Govt. Dental College and Hospital Srinagar.²Professor and H.O.D –Department of Pedodontics and Preventive Dentistry Govt. Dental College Srinagar India.***Corresponding Author: Dr. Mohamad Arshid Khanday**

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Article Received on 22/08/2021

Article Revised on 12/09/2021

Article Accepted on 02/10/2021

ABSTRACT

Aim and objectives: In December 2019, a novel coronavirus emerged in Wuhan City, and a retrospective analysis is necessary to provide clinicians with the characteristics of traumatic dental injuries (TDIs) during the epidemic. The aim of this study was to assess how COVID-19 has impacted traumatic dental attendances in our department. **Methodology:** All patients treated for TDIs in the ThePedodontc and preventive dentistry at Govt Dental College and hospital were involved in this retrospective study. A retrospective service evaluation of attendances to a paediatric emergency department with traumatic dental injuries (TDIs) and comparing the COVID-19 affected months june-November 2020 to the same time frame in 2019. **Results:** Regarding the reason of injury, fall injuries comprised the most commonly encountered cases both before (57%) and after the start of the pandemic (60%). During the study time period, there was a statistically significant reduction in the number of patients visiting to the department for TDI treatment ($p < 0.05$). **Conclusion:** Unless dental practices have the appropriate PPE and follow strict infection prevention and control guidance, face-to-face consultation may not be possible. If treatment is required, this is based on minimum intervention and avoidance of aerosol generating procedures (AGPs) on patients who are free of COVID-19.

KEYWORDS: COVID-19, maxillofacial trauma, transmission control measures, traumatic dental injuries.**INTRODUCTION**

The new SARS-CoV-2 virus, commonly referred to as coronavirus disease 2019 (COVID-19), has been in the spotlight of the international medical community since its first appearance in December 2019. Shortly after its emergence, the rapid spread of COVID-19 forced governments across the globe to implement unprecedented measures such as social distancing, avoidance of physical contact, and complete or partial confinement measures (colloquially termed as lockdown) in an effort to minimize contagion. Globally, the negative effects of the COVID-19 health impacts expanded to include social and economic impacts, accompanied with sudden discontinuation of school programs for children and adolescents. During the pandemic, it was reported that there was a high prevalence of psychological stress, low mood, and irritability followed the quarantine associated with exhaustion and emotional disturbance, anger, insomnia, and depressive symptoms.^[1]

As a result of the COVID-19 outbreak, many oral clinics across the world have issued a notice of suspension or delay in opening. However, critical oral care services for conditions such as acute toothache, TDI and

maxillofacial trauma are still ongoing.^[2] Participants in dental practice face a significant risk of 2019-ncov infection due to face-to-face communication, exposure to saliva, blood and other body fluids, and sharp tools for handling.

Traumatic dental injuries (TDIs) are one of the most common oral health problems and present a significant public health problem worldwide which may be influenced by socioeconomic, geographical, cultural, and environmental. In pre-school children, falls are the most common cause of oral injuries, whereas in school age children, injuries are most often caused by sports or hits by another person.^[3] Children and adolescents in general are more susceptible to these injuries than adults. In the state of Jammu and Kashmir the normal pathway to access emergency dental concerns is to contact their General Dental Practitioner (GDP). Since 'lockdown', GDPs were available for phone advise and urgent dental care. ThePedodontc and preventive dentistry Emergency Department (PED) at Govt Dental College and hospital Srinagar continued to act as an emergency service for patients under the age of 14 years.^[4] The aim of this study was to assess how COVID-19 has impacted traumatic dental attendances in our department.

METHODOLOGY

All patients treated for TDIs in the ThePedodontc and preventive dentistry at Govt Dental College and hospital were involved in this retrospective study. The hospital includes the largest patient center with oral and maxillofacial trauma in Kashmir Province. A retrospective service evaluation of attendances to a paediatric emergency department with traumatic dental injuries (TDIs) and comparing the COVID-19 affected months June-November 2020 to the same time frame in 2019.

The co-investigators reviewed the data if any calibration was required. Continuous variables used were the mean and standard deviation to describe the data. Chi-squared test was used for comparison of proportional analysis. The level of significance was set to 0.05 (two-sided). Any missing or unclear information was categorized as not reported. PPE was used with all patients. Strict COVID prevention guidelines (to follow) were used with all patients. Following these guidelines, there was no transmission from a patient to a healthcare worker.

RESULTS

In total, 24 patients visited the department during the designated study periods after the start of the pandemic. These patients were matched with 45 patients that received care from our department during the corresponding time periods of the year 2019. Regarding the reason of injury, fall injuries comprised the most commonly encountered cases both before (57%) and after the start of the pandemic (60%). During the study time period, there was a statistically significant reduction in the number of patients visiting to the department for TDI treatment ($p < 0.05$).

DISCUSSION

The aim of our study was to determine the characteristic changes of TDIs during the COVID-19 epidemic, by comparing data of COVID period of this year with a historic sample from the same period of the previous year. During the study time period, there was a significant reduction in the number of patients visiting to the department for TDI treatment which may be attributed to people being quarantined at home and restricted outdoor activities.^[5] This reduction can be credibly attributed to the implementation of lockdown measures and not solely on the pandemic itself. Mild emergencies were mostly managed in an outpatient setting, while true emergencies received appropriate in-hospital care.

The COVID-19 pandemic has thrust alternative modalities such as teledentistry to the forefront of policy considerations. Teledentistry supports the delivery of oral health services through electronic communication means, connecting providers and patients without usual time and space constraints. Teledentistry's unique ability to connect disadvantaged, primarily rural communities and the homebound with dental providers makes this

method particularly well-suited to address lack of access during and after the pandemic.^[6]

Health inequities are avoidable and unjust. Although SARS-Cov-2 has infected people worldwide, it has disproportionately affected those who are most disadvantaged. In India, people without good access to health care, healthy food, and a safe environment; with underlying health conditions; who live in crowded conditions; or who have become unemployed and homeless are especially vulnerable and at increased exposure to the virus.^[7] It is time to recognize the social determinants of health and rectify unjust conditions, systemic inequality, and racism.

In such a time, oral health care providers and advocates must clearly communicate the importance of oral health to overall health, indicate the steps being taken to ensure patient and provider safety, and promote prevention and nonaerosolizing procedure. Oral health should be included in policy considerations, continued research, monitoring, surveillance, and other aspects of health.^[8] Advocacy is crucial to make permanent the temporary regulatory changes being implemented to address the immediate crisis, ensure access to oral health care, address disparities and inequities, and improve population health.

A healthy diet, based on plant-based food, healthy fats, and protein-rich food, together with weekly exercise and sunlight exposure, is set to help prevent viral diseases and enhance the human body in fighting infections such as COVID-19. However, sedentarism, unease, and tediousness caused by social isolation could lead to changes and worsening of lifestyle patterns while also promoting binge eating.^[9]

Recommendations for Paediatric Dentistry during COVID-19 pandemic

No routine dentistry should be provided for children during this pandemic. Routine dentistry should be deferred to minimise risk to patients, staff and the public. COVID-19 is thought to be transmitted via droplet, contact and airborne mechanisms. Aerosol generating procedures (AGP) present a higher risk of transmission of the virus and should therefore only be undertaken to provide urgent care where no other reasonable option is available. Any patient requesting urgent care should first be triaged by telephone, using clinical images sent to a secure nhs.net email or an online video-link by a dentist to assess the clinical urgency, establish their COVID-19 risk and that of their immediate family/carers, offer any interim self-care advice and make an appointment for a face-to-face assessment if required. Where possible, it is advisable to have two clinicians involved in the decision-making process as there may be a need to deviate from 'normal' treatment decisions and protocols. A specific concern relating to dental care provision for children is the uncertainty of their infection status: the majority of children who are infected with COVID-19 appear to only

have mild or no symptoms. Thus a clinical history may not be as suggestive of infection as it is in adults.^[10-12]

CONCLUSION

COVID-19 (also known as coronavirus) has had a profound impact on dentistry, with all elective treatment grinding to a halt initially and a slow phased return to normal services. The guidance available regarding treating dental emergencies is currently advice, analgesia and antimicrobials, where indicated in the first instance. Some patients cannot be managed successfully with this approach and require face-to-face consultation. Unless dental practices have the appropriate PPE and follow strict infection prevention and control guidance, face-to-face consultation may not be possible. If treatment is required, this is based on minimum intervention and avoidance of aerosol generating procedures (AGPs) on patients who are free of COVID-19. COVID-19-positive or suspected patients still require treatment at designated Urgent Dental Care centres. The aim of this article is to provide an insight into the COVID-19 pandemic and its implications on current emergency dental care. Commonly presenting dental conditions which require endodontic management will be discussed. Finally, an endodontic management protocol is suggested.

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