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LETTER TO THE EDITOR

Questions associated with the COVID-19 pandemic that should be answered by traumatic dental injuries researchers

Dear Editor,

In addition to the millions of lives lost around the globe due to the COVID-19 pandemic,¹ the dental community has also been severely affected by this catastrophic event.²

Traumatic dental injuries (TDI) are the 5th most prevalent condition in the world, ^{3,4} and Brazil is the country that publishes most on the subject, with authorship of 18.27% of articles worldwide.⁵ Brazil enacted a state of emergency due to COVID-19 in March 2020. However, more than a year later, and unlike other countries, the daily average number of deaths exceeds the tragic number of 3000 people.⁶ The prospect of flattening the epidemic curve is distant. Given the delay in initiating the process of mass vaccination, restrictive measures and social distancing remain extremely necessary.

The implications of the COVID-19 pandemic in the context of multifactorial TDI management involve its etiology, treatment and the monitoring of sequelae. The scientific community reports 'falling from own height' as the most frequent cause of TDI.⁷ However, the social isolation imposed by the pandemic has altered the lifestyle of people in all age groups, influencing their susceptibility to accidents of this type. Additionally, the increase in domestic violence rates in the country, mainly victimizing women, children and adolescents,⁸ may increase the frequency of physical assaults in the etiologic panorama of TDI.

Due to the virus contingency measures in the country, the local activities of reference centres for research and care for TDI in Brazil, mainly located in higher education institutions, have been totally or partially paralysed, affecting the epidemiological monitoring of TDI nationwide. Thus, COVID-19 has impacted not only the treatment and monitoring of patients who have suffered TDI but also the acquisition of new findings and further scientific contributions to the field, amplifying the challenges the pandemic poses for dentistry.

The monitoring and follow-up of TDI are indispensable due to the negative impact on the quality of life of affected individuals and its high potential to cause sequelae for the traumatized tooth or its successor in the case of injuries to the primary dentition.⁹⁻¹¹ In this sense, the COVID-19 pandemic in Brazil is a limiting factor not only for the diagnosis and treatment of new injuries but also for the follow-up of those who were already being monitored by reference centres.

In countries where teledentistry resources are available, basic monitoring of these cases can be done remotely.^{12,13} However, to

date, the Brazilian Federal Council of Dentistry has not allowed the use of teledentistry by clinics linked to institutions of higher education, constituting yet another restrictive factor for the monitoring of TDI in the country during the pandemic.

Considering these limitations, it is of utmost importance that the reference centres maintain a presence in virtual environments. Through the creation of websites and profiles on social networks, reference centres can provide patients with educational materials on the prevention and treatment of TDI. This is a measure that, in addition to providing guidance and support for patients and family members, maintains the connection between patients and the centre, and reinforces the importance of resuming the follow-up and monitoring of the TDI as soon as face-to-face activities resume.

In view of Brazil's robust contribution to the understanding of this important field of dentistry, we believe that the long period of paralysis of TDI reference centres in the country will be highly detrimental to the study of dental traumatology worldwide. In addition, due to the COVID-19 pandemic, hundreds of patients with dental traumatic injuries are no longer receiving treatment or follow-up and likely will suffer from the consequences associated with the injuries, whether dental or biopsychosocial.

The challenges the COVID-19 pandemic has posed for the management of dental trauma are extensive worldwide, especially in countries such as Brazil that continue to face high incidence and death rates. Thus, on the resumption of the reference centres, researchers will need to investigate the impacts of the COVID-19 pandemic on this important public health problem, which has historically affected the population at all stages of life.

Researchers on the subject must be prepared to answer questions that: (I) identify the influence of factors associated with the COVID-19 pandemic on the prevalence of TDI in the general population and specific groups such as women, children and adolescents; (II) evaluate the possible changes in the etiological profile and risk factors related to the different types of dental trauma and their sequelae; and (III) determine the effects of the COVID-19 pandemic on the physical, emotional and social health of patients affected by TDI and, finally, its impacts on the population's quality of life.

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CONFLICT OF INTEREST

The authors declares that there are no conflicts of interest.

AUTHOR CONTRIBUTION

LAJ was responsible for the conception and writing; LCM was responsible for the conception, writing and revised the letter. All authors approved the final version.

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REFERENCES

- Johns Hopkins University. COVID-19 dashboard by the Center for Systems Science and Engineering (CSSE) at Johns Hopkins University (JHU). 2021. https://coronavirus.jhu.edu/map.html. Accessed 12 April 2021.
- Coulthard P, Thomson P, Dave M, Coulthard FP, Seoudi N, Hill M. The COVID-19 pandemic and dentistry: the clinical, legal and economic consequences – part 2: consequences of withholding dental care. Br Dent J. 2020;229:801–5.
- Petti S, Glendor U, Andersson L. World traumatic dental injury prevalence and incidence, a meta-analysis-one billion living people have had traumatic dental injuries. Dent Traumatol. 2018;34:71–86.
- Abbott P. Traumatic dental injuries are now the 5th most prevalent disease/injury in the world-But they are being neglected!! Dent Traumatol. 2018;34:383.
- Liu F, Wu TT, Lei G, Fadlelseed AFA, Xie N, Wang DY, et al. Worldwide tendency and perspectives in traumatic dental injuries: a bibliometric analysis over two decades (1999–2018). Dent Traumatol. 2020;36:489–97.
- Ministério da Saúde. Painel Coronavírus. Brazil. 2021. https:// covid.saude.gov.br/. Accessed 12 April 2021.
- Jesus MA, Antunes LA, Risso PA, Freire MV, Maia LC. Epidemiologic survey of traumatic dental injuries in children seen at the Federal University of Rio de Janeiro, Brazil. Braz Oral Res. 2010;24:89–94.
- Marques ES, Moraes CL, Hasselmann MH, Deslandes SF, Reichenheim ME. A violência contra mulheres, crianças e adolescentes em tempos de pandemia pela COVID-19: panorama, motivações e formas de enfrentamento. Cadernos de Saúde Pública. 2020;36(4):e00074420. Epub April 30, 2020.
- Antunes LAA, Lemos HM, Milani AJ, Guimarães LS, Küchler EC, Antunes LS. Does traumatic dental injury impact oral health-related to quality of life of children and adolescents? Systematic review and meta-analysis. Int J Dent Hyg. 2020;18:142–62.
- Darley RM, Fernandes ESC, Costa FDS, Xavier CB, Demarco FF. Complications and sequelae of concussion and subluxation in permanent teeth: a systematic review and meta-analysis. Dent Traumatol. 2020;36:557–67.
- Lenzi MM, Alexandria AK, Ferreira DM, Maia LC. Does trauma in the primary dentition cause sequelae in permanent successors? A systematic review. Dent Traumatol. 2015;31:79–88.
- Day P, Djemal S, Albadri S. Permanent dentition acute management of traumatic injuries and follow-up care during the COVID-19 pandemic. Available at: https://www.dentaltrauma.co.uk/File.ashx-?id=15336. Accessed 15 April 2020.
- Day P, Djemal S, Albadri S. Primary dentition acute management of traumatic injuries and follow-up care during the COVID-19 pandemic. Available at: https://www.dentaltrauma.co.uk/File.ashx-?id=15337. Accessed 15 April 2020.

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