

Patient's rights to dental treatment - the influence of the Covid-19 pandemic



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Abstract

Aim and objectives: The present study aims is to observe and analyse the impact that the COVID-19 pandemic has on patients' right to have access to dental medical services. Both the national quarantine by decreeing the state of national emergency in Romania and the state of alert instituted due to the pandemic had an important impact on patients' appointments for dental procedures.

Material and methods: We analyse the statistical data starting from the two groups of patients and follow the main differences that appear due to the COVID-19 pandemic. Group 1-non-pandemic included patients who presented themselves in the office between March 14, 2019 and March 14, 2020 and group 2-pandemic included patients who presented themselves in the office between March 15, 2020 and March 15, 2021.

Conclusions: Following this study, we can say that the COVID-19 pandemic has a major impact on patients' right to dental treatment, affecting both access to services medical as well as unjustifiably delaying the treatment of dental pathology.

Keywords: dental treatment; Covid-19, pandemic, patient rights

INTRODUCTION

In December 2019, a case of unknown pneumonia was detected in the city of Wuhan (China). It was first reported to the WHO China Office on 31 December 2019. This pneumonic infection spread rapidly from Wuhan to most other Chinese provinces and in 24 other countries. On January 30, 2020, the outbreak was declared a Public Health Emergency with International concern. Chinese researchers quickly discovered and isolated a new coronavirus, (2019-nCoV), responsible for the onset of pneumonia. On February 11, 2020, the WHO announced a name for the new disease caused by the coronavirus, COVID-19, and increased the risk assessment of spread to "very high" on 28 February 2020. On 11 March 2020, the WHO Director-General stated that the spread of COVID-19 is no longer limited to certain geographical areas, but a pandemic spread throughout the world. The first two cases of COVID-19 in Europe appear in Italy, a couple by Chinese tourists, being confirmed positive on January 30, 2020 by the Spallanzani Institute (Rome) where they were hospitalized and isolated until their recovery on February 26, 2020 [1,2].

Transmission routes of SARS-CoV-2 include Flüge droplets (particles with diameter $\geq 5 \mu\text{m}$) generated from coughs and sneezes of infected patients, as well as direct contact with oral, nasal and ocular mucosa. In addition, studies have shown that SARS-CoV-2 can be transmitted through saliva [12]. Some studies suggest that the salivary glands may represent a reservoir for asymptomatic COVID-19 infection. In fact, the expression of the angiotensin-converting enzyme 2-ECA, a key receptor for COVID-19, is higher in minor salivary glands than in the lungs. This could explain the occasional lack of symptoms in infected subjects. More than both, the positive rate of COVID-19 in patients' saliva can reach up to 100%, and the samples of saliva is a culture medium for the virus. These considerations are of major importance in dental treatment, due to the contagious potential of saliva [3,4].

The oral manifestations of COVID-19 are polymorphic and represented by ulcerations of oral mucosa, erosions, bubbles, vesicles, pustules, fissured, tongue, macule, papule, placard, pigmented areas, halitosis, whitish areas, haemorrhagic crusts, areas of necrosis oral mucosa, petechiae, oedema, erythema and spontaneous bleeding. The most common affected sites, in descending order, they are: tongue (38%), labial mucosa (26%), palate (22%), gum (8%), oral mucosa (5%), oropharynx (4%) and tonsil (1%). These lesions are classified as stomatitis foot and mouth, herpetiform lesions, candidiasis, vasculitis, mucositis, eruptions, ulcero-necrotic stomatitis, angular cheilitis. Oral lesions are symptomatic, with patients complaining of pain, itching or paresthesias. The latency time between the appearance of systemic symptoms and oral lesions can be between 4 days before the appearance of general manifestations of the disease and up to 12 weeks after the appearance general symptoms. Oral lesions heal with complete remission between 3 and 28 days after initial appearance. Various types of therapy, including mouthwash with hydrogen peroxide and chlorhexidine, nystatin, oral fluconazole, topical or systemic corticosteroids, systemic antibiotics, acyclovir systemically, artificial saliva and photobiomodulatory therapy were prescribed for oral lesions [5].

Dental procedures, by their nature, present a high risk of infection with COVID-19 due to face-to-face contact between patients and the dentist and nurse. Furthermore, frequent contamination with saliva, blood and other biological fluids such as pus, but also use sharp and high-speed rotating instruments increase the risk of transmission of infection in dental offices. A published report suggests that the transmission of the pathogen SARS-CoV-2 it can also occur by inhaling remnants of the virus that can survive on surfaces for some time hours. Clinical studies indicate that most dental procedures involving the use rotating handpieces

generate a considerable amount of aerosols, contaminated droplets and potentially infectious [6,7].

In Romania, the first measures taken to limit the COVID-19 pandemic have started by issuing a DECREE by the President of Romania, decree no. 195 of 16 March 2020 regarding the establishment of the state of emergency on the territory of Romania, published in the GAZETTE OFFICIAL of Romania no. 212 of March 16, 2020. He took into account the evolution of the situation epidemiological on the territory of Romania and public health risk assessment for the period immediately following, which indicated a massive increase in the number of people infected with the SARS-CoV-2 coronavirus, taking into account the fact that the failure to take urgent, characterful measures exceptionally, in the social and economic field, for limiting infection with the SARSCoV-2 among the population would have a particularly serious impact, mainly on the right to life and, subsidiarily, on the right to health of individuals, the state of emergency was established on he territory of Romania for 30 days[8].

Subsequently, the Ministry of Internal Affairs issues MILITARY ORDINANCE no. 2 of March 21, 2020 on measures to prevent the spread of COVID-19, which in article 1 stipulates that: (1) Activity in dental offices is temporarily suspended. (2) By exception, they are emergency dental interventions allowed. (3) The measure applies starting from March 22 2020, 22:00, Romanian time [9].

After this military ordinance, by Decision of the National Executive Office no. 16/3BExN/2020 of the CMSR, clarifications were made regarding the performance by the offices of public and private dentistry of emergency dental interventions and was approved the plan of measures regarding the general framework for performing emergency dental interventions. It is the situation in which the patient needs medical care is considered a dental emergency immediate for the control of pain, infection or bleeding, according to the provisions of art. 12 para. (3) from the ethical code adopted by the Decision of the National General Assembly by Decision no. 15/2010. On throughout the territory of Romania, according to the CMSR website, around 150 emergency rooms were operating in dentistry, both public and private.

Thus, the activity of dental offices was limited exclusively to ensuring the therapeutic solution of dental emergencies:

- postextractional haemorrhage;
- pain due to acute pulpitis;
- pain due to acute apical periodontitis;
- pericoronitis of the impacted teeth;
- postextractional alveolitis;
- odontogenic cellulitis/abscesses;
- jaw/mandible fractures (emergency immobilization);
- dislocation of the temporomandibular joint;
- dento-alveolar traumas (dislocations, avulsions, dental fractures);
- ulcer necrotic gingivostomatitis.

On 14.05.2020 the National Committee for Emergency Situations adopts DECISION no. 24 regarding the approval of the establishment of the state of alert at the national level and the measures of infection prevention and control, in the context of the epidemiological situation generated by the virus SARS-CoV-2. This stipulates in article 1 that starting from 15.05.2020, it is declaredState of alert at national level, for a period of 30 days [10]. The state of alert was extended repeatedly.

Aim and objectives

The purpose of this study is to observe and analyse the impact that the COVID-19 has on the right of patients to have access to dental medical services. so much national quarantine by declaring the state of national emergency in Romania as well as the state of alert instituted due to the pandemic had an important impact on patients' appointments for dental procedures. Both ongoing treatments and emergency procedures were affected.

MATERIAL AND METHODS

In this study, we included patients of our private practice dental office located in Timișoara, Romania.

The observational study focuses on the comparison of two groups of patients who meet the inclusion and exclusion criteria:

o *group 1-non-pandemic* included patients who presented themselves in the office, during March 14 2019 – March 14, 2020.

o *group 2-pandemic* included patients who presented themselves in the office, period March 15, 2020– March 15, 2021.

Patients included in the observational study were informed of a possible medical research and have given their consent by signing the informed consent form, according to Ministry of Health Order 1411 of 12.12.2016, annex no. 1 to the rules methodological-Informed patient consent expression form. It states that: "According to articles 19 and 20 of Law no. 46/2003 regarding patient rights, I express myself consent to participate as a patient in clinical medical education and scientific research, as well as regarding my pre-, intra- and post-op photography/filming, all of these information that can be used for didactic, medical and scientific purposes".

The aim is to analyze the statistical data starting from the two groups of patients and tracking the main differences arising from the COVID-19 pandemic in programming patients, addressability, emergency treatment, curative treatment, medium-term impact and long, but also the influence on diagnosis. For this purpose, we have classified dental treatments into 3 large classes:

- A. Dental emergency requiring immediate dental treatment that cannot be delayed
- B. Emergency dental care that can be scheduled within 24-48 hours
- C. Routine dental treatment

From category A, of dental emergencies that require immediate dental treatment which cannot be postponed include: postextractional haemorrhage; pain due to acute pulpitis; pain due to acute apical periodontitis; pericoronitis of the impacted teeth; postextractional alveolitis; odontogenic cellulitis/abscesses; jaw/mandible fractures (emergency immobilization); dislocation of the temporomandibular joint; dento-alveolar traumas (dislocations, avulsions, dental fractures); ulcer necrotic gingivostomatitis.

From category B, of urgent dental medical assistance, which can be scheduled in 24-48 hours, include: patients with painful pathology due to chronic acute pulpitis that succumb to pharmaceutical treatment; patients with painful pathology due to chronic acute periodontitis that succumb to pharmaceutical treatment; patients who require tooth extractions; patients with loose prosthetic restorations.

Category C, of routine dental treatment, includes: patients with old, painless decays; patients with various edentulous that require implantologic treatment; patients presenting for prosthetic treatment; patients presenting for professional dental cleaning; patients who want aesthetic dental treatment; patients who want dental fillings or want their replacement; patients who want dental treatment planning.

RESULTS

Group 1, non-pandemic, included 985 patients who presented to the dental office. *Group 2, pandemic*, included 642 patients. From the point of view of the distribution of patients by gender and age: in group 1, non-pandemic, we included 545 male patients representing 55.3% and 440 female patients, representing 44.7%. Group 2, pandemic, included 642 patients - 358 males, representing 55.7% and 284 female patients, representing 44.3%.

Regarding age categories:

- o 18-30 years: group 1- 252 patients, group 2- 185 patients
- o 31-60 years: group 1- 380 patients, group 2- 258 patients
- o >60 years: group 1- 353 patients, group 2- 199 patients

Regarding the dental operations performed and classified in groups A, B and C, the distribution was as follows: A. Dental emergency requiring immediate dental treatment that cannot be delayed: group 1-218 patients (22.1%), group 2-301 patients (46.9%).

B. Urgent dental care, which can be scheduled in 24-48 hours: group 1- 342 patients (34.7%), group 2-165 patients (25.7%).

C. Routine dental treatment: group 1-425 patients (43.2%), group 2-176 patients (27.4%).

DISCUSSIONS

Patient access to dental services has suffered since 15.05.2020, with the establishment of the state of emergency at national level. Patients' right to treatments dentistry was affected by decree no. 195 of March 16, 2020 regarding the establishment of the state of emergency on the territory of Romania, published in the OFFICIAL MONITOR of Romania no. 212 of March 16 2020. Thus, starting from this date, the accessibility of dental services becomes almost nil due to the limitation or prohibition of the movement of vehicles or people to/from certain areas or between certain hours, as well as exiting those areas. Even if the activity of our office has not been officially suspended by normative acts, most patients have theirs cancelled the appointments they had or wanted to reschedule them without specifying a specific date. Remained for treatment only patients in category A, of dental emergencies that require immediate dental treatment that cannot be postponed.

The impact of the closure of dental offices was important, by the reason of not treating at the time the carious pathology and its complications as pulpitis and periodontitis, by accentuating the pain of odontogenic cause, through odontogenic infections of the cervico-facial fascial spaces. Starting from May 15, 2020, dental activity resumes, respecting all the laws, norms and recommendations issued by the legislator, including CMSR. In the first 6 weeks, the flow of patients is almost double, both for initial consultations, emergencies and completing dental treatments stopped due to the state of emergency, then following a trend downward. As can be seen from the results of our study, the number of pre-pandemic patients it was much higher, with 343 more patients compared to the group analysed from the time the pandemic. The explanations for this massive decrease found in the number of patients is on the one hand the state of emergency with the closing of dental offices, but also the reluctance of patients for services represented by the fear of contacting the virus from medical facilities. This trend it is also confirmed by specialized literature, which shows similar data all over the globe [11-14].

In terms of performing dental procedures, the number of dental emergencies that required immediate dental treatment that cannot be postponed, it almost doubled during the pandemic compared to the pre-pandemic period. As an explanation, and in close correlation, may be the massive decrease in the number of routine dental treatments observed today study. Patients postpone the presentation to the dentist until the dental pathology is acute.

CONCLUSIONS

We can state that the COVID-19 pandemic has a major impact on patients' right to dental treatment, affecting both access to medical services as well as unjustifiably delaying the treatment of dental pathology. If during the pre-pandemic period the number of dental pathologies that required emergency treatment was at one acceptable level, during the pandemic it increased substantially.

Although most of the public attention and medical forums focus on the prevention of infection with the SARS-CoV-2 virus and the possible aspects of the pathology of COVID-19 consequences on the health of the oral cavity caused by the fear of infection with the coronavirus must be investigated. Understanding the impact of the pandemic on dental services should have a defining role on the management of dental prophylaxis measures and the education of the population regarding dental health.

We believe that this study should be continued on a larger group of patients, multicentric, underlying the reconsideration of the role of preventive dentistry and taken into account for rethinking health policies at the national and global level.

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