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Nine years of dental care for a patient with intellectual disability: a clinical case report

Nueve años de atención odontológica a un paciente con discapacidad intelectual: relato de caso clínico

Marcia Cançado-Figueiredo[1,a], Eliane Cardoso-Cappellaro[2], Daiana Back-Gouvêa[3], Ana R. Vianna-Potrich[4], Judith Liberman-Perlmutter[5]

Abstract

The Intellectual disability is a neuropsychiatric disorder that affects cognitive, motor, social and language functions. The difficulty of patients and their caregivers in performing oral hygiene is linked to the failure to preserve their health. The objective of this article is to report the dental care of a 55-year-old patient diagnosed with intellectual disability caused by perinatal anoxia. All the necessary dental procedures were carried out, always preserving the pertinent care for the patient's care, providing her with a positive emotional benefit, through constant stimulation, gradual inclusion of the patient and her caregiver in the dental environment, associated with the preventive-educational reinforcement activities.

Keywords: intellectual disability, dentistr, oral health.

Resumen

La discapacidad intelectual es un trastorno neuropsiquiátrico que afecta funciones cognitivas, motoras, sociales y de lenguaje. La dificultad de los pacientes y sus cuidadores en realizar la higiene bucal está ligada al fracaso en la preservación de su salud. El objetivo de este artículo es relatar la atención odontológica de una paciente de 55 años de edad diagnosticada con discapacidad intelectual causada por anoxia perinatal. Se realizaron todos los procedimientos odontológicos necesarios, preservando siempre los cuidados pertinentes a la atención de la paciente, proporcionándole a la misma un beneficio emocional positivo, a través de estímulos constantes, inclusión gradual de ésta y su cuidadora en el ambiente odontológico, asociado a las actividades de refuerzo preventivo-educativo. Se concluye que el conocimiento de las particularidades de la paciente relatada con discapacidad intelectual fue de extrema importancia para la conducción de su tratamiento odontológico, siendo posible tener conductas adecuadas en su rehabilitación oral.

Palabras clave: discapacidad Intelectual, odontología, salud bucal.

[1]Associate Professor of the Faculty of Dentistry of the Federal University of Rio Grande do Sul, Porto Alegre, Rio Grande do Sul, Brazil.
[2]Student of the Odontology Course, Faculty of Dentistry, Federal University of Rio Grande do Sul, Porto Alegre, Rio Grande do Sul, Brazil.
[3]Dental Doctor Surgery of the Faculty of Dentistry of the Federal University of Rio Grande do Sul, Porto Alegre, Rio Grande do Sul, Brazil.
[4]Dental Doctor Surgery of the Faculty of Dentistry of the Federal University of Rio Grande do Sul, Porto Alegre, Rio Grande do Sul, Brazil.
[5]PhD in Pediatric Dentistry at the Federal University of Rio Grande do Sul, Porto Alegre, Rio Grande do Sul, Brazil and Associate Professor of the School of Dentistry of the University of the Republic, Montevideo, Uruguay.

ORCID:
[a]https://orcid.org/0000-0002-4279-5417

Corresponding author:
Márcia Cançado Figueiredo

Postal Address: Faculty of Dentistry of the Federal University of Rio Grande do Sul, Porto Alegre, Rio Grande do Sul, Brazil.

Email: mcf1958@gmail.com

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Introduction

The Intellectual disability (ID) comprises a reduced ability to apply new skills and understand information, affecting cognitive functions, language, motor skills and social capacity, which last throughout the development of the individual (1).

The etiology for this disorder is unknown in most cases, but it can be correlated with the time of the causal event prenatal (genetic factors), perinatal (anoxia, prematurity) and postnatal (infections, head injuries, among others) (2).

In relation to the general health of patients with ID, this is altered when considering the psychological, biological and social dimensions that cause difficulty in memory, reading, writing, interpersonal skills and social judgment, lack of personal care (1), etc.

The risks of developing dental caries and periodontal disease are great. His mental limitation to understand the importance of things and the intake of many medications (antipsychotics, anticonvulsants and antidepressants) they end up causing a difficulty in performing adequate oral hygiene for maintaining their oral health (3,4). The help of family members and / or guardians in all their activities is essential and greatly reduces the vulnerability of these people to develop oral diseases (5). On the other hand, the socioeconomic level can negatively influence the maintenance of the good oral health, by making it difficult to access dentistry.

The difficulty in the care of patients with ID would be the understanding of the act itself, since the dental procedures performed are not different from those indicated for the non-disabled. Therefore, it would be of vital importance to have knowledge of the specific conditions that a patient with ID may develop and, therefore, to seek the best way to plan a dental treatment oriented to individual physiological, emotional and physical issues (6).

Given the above, the present research aims to report the dental care of a 55-year-old patient diagnosed with intellectual disability caused by perinatal anoxia.

Clinical case report

A 55-year-old patient, female gender, was taken in March 2011 to the Dental Clinic for Patients with Special Needs (PNE) of the Dental Teaching Hospital of the Faculty of Dentistry of the Federal University of Rio de Grande do Sul (HEO / UFRGS). According to her 75-year-old mother,

who also had special needs (difficulty to walk and hypertension), the goal of her search for the service was to conduct a routine consultation.

The patient suffered perinatal anoxia, this being the possible etiology of her intellectual disability, the ability to speak and hear was not affected. This patient made continuous use of Fluoxetine Hydrochloride 20mg (antidepressant), 20 drops a day; Rosuvastatin Calcium 10 mg, (reduction of total cholesterol) 1 tablet daily and Vitamin D supplement 2000 IU, 1 drop a day (regulation of the concentration of calcium and phosphorus in the body). The use of some of these drugs generated xerostomia which predisposes to cavities and/or periodontal disease.

In the clinical examination carried out in 2011, it was found that she is a patient with active caries lesions, with the presence of visible biofilm, gingival bleeding with thick, foamy saliva. All the necessary dental procedures were carried out, highlighting the preventive-educational reinforcement activities.

In the medical history, it was found that the patient herself performed oral hygiene twice a day at different times, did not use dental floss and ingested sugar more than 5 times a day. In every return Prophylaxis, supragingival scraping and topical application of acidulated fluoride phosphate gel with a concentration of 1.23% were performed annually, educational reinforcement so that her caregiver could assist her in her daily tooth brushing., ("don't forget to brush before to sleep") and instructions on a balanced diet.

The patient was a collaborator in all consultations, hardly requesting the mother's presence in the clinical room and faster clinical sessions, which reduced the effort of the professionals involved (Figure 1). No other type of treatment (direct or indirect restorations, sealants, etc.) was performed on the patient during this period.

However, in her periodic return in 2019, the presence of a fixed prosthesis was confirmed in teeth 11 and 21 with pontics in Cantilevers in 12 and 22. This prosthesis was removed with the aim of being replaced by a removable partial prosthesis (PPR). This need for removal occurred due to the presence of a periapical lesion associated with tooth 11 and infiltration in the radicular cementation margin, observed in the periapical radiograph. Between the prosthesis and the dental remnant there was a large accumulation of detritus, explained by the difficulty of the patient and her mother in carrying out adequate sanitation (Figure 2). In this way, with PPR the patient would have easier to perform daily oral hygiene at this site. The removable partial denture restored self-esteem by improving the aesthetics, chewing and phonation of the patient (Figure 3).

The maintenance controls of the PNE of the HEO / UFRGS are annual due to the large number of patients who attend there, and there is no risk assessment for caries and periodontal disease.

The person responsible for the patient signed the Informed Consent to allow all proposed dental procedures to be performed on your daughter. The evaluation protocol for patients with ID treated at the UFRGS School of Dentistry was approved by the UFRGS Research Ethics Committee under number 1.499.611 and CAAE 53941216.7.0000.5347.

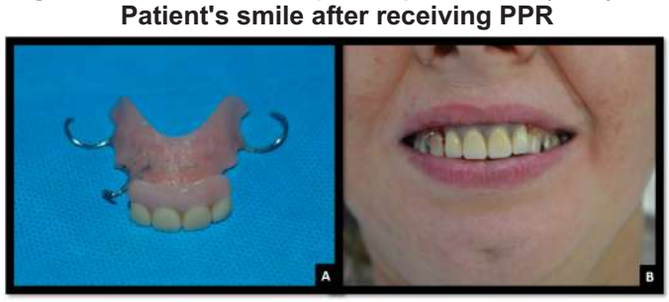
Figura 1: Figure 1: One of the patient's consultations in 2011, as part of her conditioning in the clinic, interpreting the role of dentist

Source: authors

Figure 2: A - Periapical X-ray of teeth 11 and 21, indicating the presence of a periapical lesion; B - Avulsion procedure of teeth 11 and 21; C - Fixed prosthesis removed and dental remnants of 11 and 21

Source: authors

Figure 3: A - Removable partial prosthesis (PPR); B - Patient's smile after receiving PPR



Source: authors

Discusión

The Intellectual disability is a condition characterized by the presence of an intellectual level significantly lower than the average and that has its onset before the age of eighteen1. According to Campos et al. (7) patients with ID have limitations in daily life, social / interpersonal skills, community life, self-sufficiency, academic skills, work, recreation, health and safety. These characteristics were found in the reported patient.

When the life expectancy of people with ID was compared in the past, a significant increase was observed in relation to the current days. While adults with ID are more likely to develop health problems such as malnutrition, anxiety, depression, infections due to low immunity, compared to the adult healthy population, they have lived longer and with a decent health condition (8).

The Oral health plays a relevant role in the quality of life of these patients, in the improvement of communication, in the social integration of these people, since it can also be associated with the improvement of their self-esteem and confidence. In addition to aesthetics, it is important for these patients to be free from pain and oral diseases, which would facilitate chewing, swallowing, speaking and digestion. It is essential to maintain oral hygiene care for the health and well-being of this population (1). The patient in question had difficulties in maintaining her oral health due to having an elderly caregiver and also with special needs, such as displacement problems and arterial hypertension. She also dominated her mother / caregiver, she was tenacious enough that she did not allow help for the performance of correct oral hygiene. Responsible caregivers of patients with ID feel overwhelmed with the task for which they are assigned because they require complex care and attention (6).

Adults with ID require daily assistance from their general caregivers. Once their caregivers age and with this there is a reduction in the quality of care received. This creates barriers to dental success, which would result in worse oral health conditions and a greater number of interventions performed when compared to the general population (2). The previous argument explains what happened with the patient, her elderly caregiver was already experiencing manual dexterity difficulties and her training to perform adequate hygiene was carried out with difficulties. Many times, over the years, caregivers who are mostly mothers end up overloaded with other daily activities of their personal interest and are more likely to have financial difficulties and a high burden (8.5).

An alarming factor was the cariogenic diet of the patient, since he had a habit of snacking on sweets between his daily meals. Therefore, in the clinic, it was reinforced that their diet should be nutritious, reducing sugar consumption between meals (9,10). It was also observed on clinical examination that the patient's saliva appeared foamy and thick, indicating that it is xerostomia due to the use of antidepressants (4). In this case, the patient was asked not to eat foods with strong flavors such as salt, acid and sour to avoid an increase in the sensitivity of the taste buds and also to drink at least two liters of water a day to promote hydration. All medications must be ingested following the instructions of the patient's doctor and the dentist must guide the number of adverse effects in the oral cavity.

More than 70% of caregivers in Brazil live with one (US $ 200) to two minimum wages (US $ 400) as family income per month and do not have sufficient economic conditions to care for the disabled (5). This is the reality of patients and that makes it very difficult to indicate for them the use of accessory instruments such as electric brushes (with sonic, oscillating, rotational, anti-rotational movements, etc., which could be more indicated). This same ideal situation would indicate the use of toothpastes with ACP-CCP, or with a higher fluoride content (2500ppm or 5000ppmF), “Waterpik Water Flosser” type oral irrigators and fluoride mouthwashes when the patient can rinse.

However, well done manual brushing continues. AccordingCosta et al. (11) electric toothbrushes achieve a reduction in biofilm and gingival bleeding, but there is no statistically significant difference between motorized and manual brushes. It is the author's opinion that the education and motivation of patients and their caregivers is the solution for the acquisition of positive results in the maintenance of oral health.

While for the systematic review with meta-analysis by Nagy et al. (12), the oscillating and vibrating electric brushes investigated seem to be statistically more effective than the manual ones, although little is known about their clinical relevance. The advantage of electric toothbrushes disappears in the case of properly oriented and motivated patients, which highlights the importance of individualized education in oral hygiene.

Another aspect that deserved attention during the dental care of the patient was her calm demeanor, which positively contributed to the result of the dental procedures performed. This was a reflection of the mother's presence in the office, the short time of the sessions and possibly her adaptation to dental consultations with the passing of these nine years (13,14). She recognized the professionals as welcoming and friendly, not needing the use of physical restraint techniques to manage the situation. Thus, due to their cooperative behavior in the clinic, what was proposed in the treatment plan could be carried out.

Certainly, it would be important for dentists who care for patients with intellectual disabilities to feel empathy for their patient and their caregiver. According to Effgem et al. (2017), by accompanying the patient assimilating theory and practice, the health professional has in his hands the power to change not only his intellectual state, but also his emotional state, generating security, sociability and self-esteem (15,16). For Curado and Bastos (2011), the performance of these professionals must always be focused on the family and health surveillance, in order to understand the physical, mental and social environment of the patient (17). It is of the utmost importance that there is transparency of what is going to be done in the dental clinic, being essential the signature of the consent by the person in charge at the beginning of all consultations (18).

In the literature, some authors (1,3,7,9,10) are unanimous in stating that the diversity of problems that people with intellectual disabilities present is still a relatively new topic and, therefore, articles are needed to understand the relationships between oral health problems whose occurrence is persistent, as well as, to build practical alternatives to the dental treatment processes of these individuals. Thus, with the construction of adequate dental interventions, it is believed that this clinical case showed the importance of a persistent, humane and effective treatment, with a longitudinal follow-up of nine years.

Conclusion

Through this case, it is concluded that the humanized and individualized behavior with a family approach to the dental treatment carried out in this patient with intellectual deficiency was essential for her success, allowing her to recover functionality and aesthetics, motivating the permanent care of her oral health.

Recommendations

It would be interesting to encourage dentists to care for patients with intellectual disabilities. It is necessary to include patients with special needs in undergraduate training, so that dental students have an early contact with this universe and learn appropriate management techniques, since there is a diversity of patients with ID who also await treatment, as presented in the referred clinical case.

Conflict of interests

The authors declare no conflict of interest.

Correspondence

Marcia Cancado Figueiredo: Conceptualization and design, analysis and interpretation of data, writing and approval of the manuscript, and technical advice.Eliane Cardoso-Cappellaro: Collection/obtaining results and writing of the manuscript.Daiana Back-Gouvêa: Critical review of the manuscript and approval of the final version. Ana R. Vianna-Potrich: Study material. Judith Liberman-Perlmutter: Writing the manuscript in Spanish.

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References

1. Ward LM, Cooper SA, Hughes-McCormack L, Macpherson L, Kinnear D. Oral health of adults with intellectual disabilities: a systematic review. Journal of Intellectual Disability Research, [s. l.]. 2019; 63(PartII):1359-1378. DOI: http://dx.doi.org/10.1111/jir.12632
2. Sun MC, Ji-Soo S, Juhea C. Differences Between Caregiver-Perceived and Dentist-Assessed Oral Health Status of Patients Among Intellectual Disabilities. Community Dental Health,[s. l.]. 2019;36(4):256–262. DOI: http://dx.doi.org/10.1922/CDH_4583Cho07
3. Queiroz FS, Rodrigues MMLF, Cordeiro Junior GA, Oliveira AB, Oliveira JD, Almeida ER. Avaliação das condições de saúde bucal de Portadores de Necessidades Especiais. Revista de Odontologia da UNESP, Araraquara. 2014;46(6):396-401. DOI: http://dx.doi.org/10.1590/1807-2577.1013
4. Vidal ACC, Lima GA, Grinfeld S. Pacientes idosos: relação entre xerostomia e o uso de diuréticos, antidepressivos e antihipertensivos. International Journal of Dentistry, Recife.2004; 3(1):330-335. Disponible en: https://periodicos.ufpe.br/revistas/dentistry/article/viewFile/13831/16680. Acceso en: 20 de julio de 2021.
5. Figueiredo MC, Haas AN, Silva AM, Furtado, TC. Perfil, sentimentos e qualidade de vida dos cuidadores de pacientes com deficiência atendidos na Faculdade de Odontologia da Universidade Federal do Rio Grande do Sul: cuidadores de pacientes com deficiência com a palavra RFO UPF, Passo Fundo. 2019;24(3)378-386. DOI: http://dx.doi.org/10.5335/rfo.v24i3.9941
6. Lopes JCM, Schossler LT, Reis GES, Saror JR, Pupo YM. Promoção de saúde bucal a pessoas com deficiência em escolas de educação especial. VIII Congresso Nacional de Educação: Curitiba; 2016. Disponible en: https://educere.bruc.com.br/arquivo/pdf2017/24085_12209.pdf. Acceso en: 18 de julio de 2021.
7. Campos CC, Frazão BB, Saddi GL, Morais LA, Ferreira MG, Setúbal PCO, et al. Manual prático para o atendimento odontológico de pacientes com necessidades especiais. 2a. ed. Goiânia: Universidade Federal de Goiás; 2009. Disponible en: https://files.cercomp.ufg.br/weby/up/133/o/Manual_corrigido-.pdf.Acceso en: 7 de julio de 2021.
8. Coppus AMW. People with intellectual disability: What do we know about adulthood and life expectancy? Developmental Disabilities Research Reviews,[s. l.].2013;18(1):6-16. DOI: https://doi.org/10.1002/ddrr.1123
9. Petrovic BB, Peric TO, Markovic DLJ, Bajkin BB, Petrovic D, Blagojevic DB et al. Unmet oral health needs among persons with intellectual disability. Research in Developmental Disabilities, [s. l.].2016;10(59):370-377. DOI: http://dx.doi.org/10.1922/CDH_4583Cho07
10. Chadwick D, Chapman M, Davies G. Factors affecting access to daily oral and dental care among adults with intellectual disabilities. Journal of Applied Research in Intellectual Disabilities, [s.l.]. 2017;31(1):379-394. DOI: http://dx.doi.org/ 10.1111/jar.12415
11. Costa RM, Figueiredo FMP, Mariano LC, Marchionni AM, et al.Adaptações em escovas dentais para pacientes com distúrbios motores: relato de caso. Rev Odontol Bras Central, Goiânia. 2017;26(77):61-65. Disponible en: https://www.robrac.org.br. Acceso en: 21 de julio de 2021.
12. Nagy P, Köver K, Gera I, Horváth A. Evaluation of the efficacy of powered and manual toothbrushes in preventing oral diseases Systematic review with meta-analysis. Fogorv Sz, Hungary. 2016;109(1):3-22. Disponible en: https://pubmed.ncbi.nlm.nih.gov/27188156/ Acceso en: 22 de agosto de 2021.
13. Zhou N, Wong HM, Wen YF, McGrath C. Oral health status of children and adolescents with intellectual disabilities: a systematic review and meta-analysis. Developmental Medicine & Child Neurology, [s.l.]. 2017;59(10):1019–1026. DOI: http://dx.doi.org/10.1111/dmcn.13486
14. Figueiredo MC, Potrich ARV, Gouvêa DB. Síndrome de Cornélia de Lange em bebê associada à Doença de Riga Fede tardia: relato de caso. Rev Fac Odontol Univ Fed Bahia, Salvador. 2021; 51(1):48-56. Disponible en:

https://afroasia.ufba.br/index.php/revfo/article/viewFile/44216/24388.Acceso en: 21 de julio de 2021.
15. Effgem V, Canal CPP, Missawa DDA, Rossetti CB. A visão de profissionais de saúde acerca do TDAH - Processo diagnóstico e práticas de tratamento. Construção Psicopedagógica, São Paulo. 2017;25(26):34-45. Disponible en: http://pepsic.bvsalud.org/scielo.php?script=sci_arttext&pid=S1415-69542017000100005. Acceso en: 21 de julio de 2021.
16. Figueiredo MC, Potrich ARV, Gouvêa DB, Melgar XC. Atención odontológica a paciente pediátrico con neurofibromatosis tipo 1: relato de caso clínico. Odontoestomatología, Montevideo. 2020;22(36):87-93. DOI: http://dx.doi.org/10.22592/ode2020n36a10.
17. Curado TRF, Bastos ENE. O olhar dos cirurgiões dentistas da Estratégia Saúde da Família para a saúde mental dos usuários. Cadernos ESP,Fortaleza. 2011;5(1):44-53. Disponible en: https://cadernos.esp.ce.gov.br/index.php/cadernos/article/view/50. Acceso en: 21 de julio de 2021.
18. Figueiredo MC, Crispin T, Fontes V, Potrich ARV, Gouvêa DB. Atendimento odontológico ao paciente com Síndrome de Apert: relato de caso. Rev Assoc Paul Cir Dent, São Paulo. 2021;75(1):38-44. Disponible en: http://www.sgponline.com.br/apcd/sgp/autor/detalhe_lista.asp?status1=7&status2=0&Tipo=Publicado%20na%20Revista. Acceso en: 21 de julio de 2021.