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Oral health care for older persons with Alzheimer's disease: considerations about treatment planning and caregiver involvement

Cuidados odontológicos à pessoa com doença de Alzheimer: considerações sobre o plano de tratamento e o envolvimento dos cuidadores

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Abstract

Alzheimer's disease (AD) is a neurodegenerative and progressive disease that predominantly affects women and has no cure. Obstacles to the dental care of people with AD differ in each phase, but the dental surgeon should remember to include the caregivers, formal or informal, in the treatment. Some skills need to be considered in the planning process, and dental health indices can be very helpful for the professional to assess the patient's ability to undergo treatment and how the older person can benefit from it. The dental surgeon should evaluate each person's specific needs so that personalized oral hygiene protocols can be established. The suggested adaptations must be by the reality of the older adult with AD, the family context, and daily routine, and they must contemplate the information provided by the caregiver. In this article, we invite the dental surgeon to understand the continuum of AD to properly plan treatment, considering the individual's limitations, future perspectives, and safety, always keeping the older adult free of oral infections and comfortable with his or her oral health condition.
Keywords: alzheimer disease; oral health; caregivers.

Resumo

A doença de Alzheimer (DA) é neurodegenerativa, de caráter progressivo, afeta predominantemente mulheres e até o momento não possui cura. Os obstáculos para o atendimento odontológico de pessoas com DA são diferentes em cada fase, porém em nenhuma delas o cirurgião-dentista pode esquecer de incluir os cuidadores, formais ou não, no tratamento. Algumas habilidades precisam ser consideradas no processo de planejamento, e os índices odontológicos podem ser de grande utilidade para que o profissional pondere sobre a capacidade de o paciente receber o tratamento e quanto ele pode se beneficiar dele. A avaliação das necessidades específicas para cada indivíduo deve ser conduzida pelo cirurgião-dentista, de forma que seja possível estabelecer os protocolos personalizados de higiene oral. As adaptações sugeridas devem estar de acordo com a realidade da pessoa com DA, de seu contexto familiar, de sua rotina diária, e devem contemplar as informações fornecidas pelo cuidador. O cirurgião-dentista deve compreender o *continuum* da DA para planejar adequadamente, considerando as limitações, as perspectivas futuras e a segurança do indivíduo, mantendo-o sempre livre de infecções e confortável com sua condição de saúde bucal, em colaboração com seus cuidadores, formais ou informais.
Palavras-chave: doença de alzheimer; saúde bucal; cuidadores.

Alzheimer's disease (AD) is the most common cause of dementia worldwide, accounting for 60 – 80% of all cases. It currently affects around 50 million people worldwide, and this number is expected to exceed 150 million by 2050.[1] Women are most affected by the disease, and caregivers are typically women.[1]

In this scenario, dental care is a challenging issue, and tooth loss represents an essential consequence of the precarious oral health of the older population.[2] There is a lack of evidence-based guidelines to support treatment planning and choices about when to replace teeth in this population. In 2019, the National Health Survey (conducted by the Brazilian Ministry of Health in partnership with the Brazilian Institute of Geography and Statistics) presented data on oral health indicators and in the age group of 60 to 74 years, 25.7% of individuals were edentulous, while individuals aged 75 years or older showed an even higher percentage: 49.2%.[2,3]

Studies including individuals with AD indicate that they have fewer teeth than persons without AD, fewer periodontally healthy sextants, more teeth affected by dental caries, poorer oral hygiene, a more frequent use of removable prosthetics, as well as a higher incidence of infection by *Candida albicans*, cheilitis, and lower salivary flow.[4,5] In addition to these conditions, oral cancer stands out, and individuals with a history of smoking and alcoholism are at greater risk.[3]

Managing a person with AD involves complex factors including family support, financial support, interdisciplinary care, psychological aspects, side effects of medications, cumulative effects of dental diseases, and the health system itself. The initial dental assessment of a person with AD should aim to understand the social and family context in which the individual is involved to achieve therapeutic goals. Once aware of the disease's progressive nature and what to expect, family members can understand that planning will be based on maintaining quality of life until the last day and that active participation is required in the care network that involves a person with AD.

The increasing degree of dependence is one of the drivers of dental planning. Alterations in recent memory, language, and problem-solving are predominantly observed in the early stage of AD. In this phase, the individual can maintain work and leisure activities, as well as daily tasks, even with limitations.[6,7] Self-care is still preserved at some level. Therefore, it is possible to direct the dental guidance to the individual and family members and use resources that help the person remember what was recommended.

Treatment planning does not require highly technological tools but rather reasoning that includes disease-modifying factors for each patient individually and how these factors can influence treatment and its outcomes. The dental needs and treatments must fit the older person's lifestyle.

These resources can be the simplest, such as adapting medication prescriptions with images and schemes that make them easier to understand, or be more elaborated, using technology as an ally through cell phone applications or differentiated devices.[8] Treatment in this phase should minimize the risk of future morbidities and include procedures that require less maintenance.[8,9] The extraction of teeth with worse prognoses is indicated, and prostheses on implants should be of lower complexity. The goal at this point is to maintain functionality.[8,9]

While the ability to perform activities of daily living (ADL) is preserved, dental care in the dental office is indicated in the early stages of AD. As the condition progresses and these activities become increasingly difficult to perform, domiciliary care becomes appropriate, mainly due to difficulties in locomotion and behavioral alterations. Domiciliary care may be an interesting option for this population, considering that care is performed in a warm, familiar environment and contributes to reducing the stress associated with dental treatment.[4,8]

As AD progresses, more neurons in other brain areas responsible for performing different tasks are affected.[10,11] In this stage, it is essential to pay attention to the increased risk of falls and minimize factors that can contribute to this risk, including in the dental office. Resources for maintaining the individual's autonomy are valid and necessary. However, including family members and caregivers in the treatment becomes even more important than in the previous stage. Dental planning should consider the same observations as the previous stage, but conservative treatments such as atraumatic restorative treatment (ART) gain even more space along with infection prevention.[12,13]

At this moment, communication skills can contribute to a friendlier treatment approach. The VERA framework can help facilitate communication; it brings together constructs that guide interventions with people with dementia: validation, emotion, reassurance, and activity.[10,14] Validation is the first stage of the framework and means adopting an essential acceptance that the behavior exhibited by the person has value. Then, Emotion refers to paying attention to the emotional content, showing that the professional acknowledges the feeling being expressed rather than the confused verbal content. The Reassure stage is to act, verbally or non-verbally, to reduce the person's anguish by demonstrating kindness, safety, and optimism. At last, Action is a significant way of maintaining a sense of personhood. This stage strengthens

the idea that each interaction provides an opportunity to learn about what is and what is not helpful for that person. Information must be objective, expressed through short sentences with simple commands. The team involved in care must be ready to repeat it as many times as necessary so the individual is more likely to feel validated, welcomed, protected, and directly involved in the proposed procedure.[9,10]

In the later stages of AD, other symptoms emerge and increase the degree of dependence. Some individuals quickly become bedridden; communication becomes gradually more complex, behavioral and psychological symptoms intensify, including apathy and depression, and difficulty swallowing may arise, increasing the risk of bronchoaspiration.[10,12] At this stage, dental treatment takes another direction. It should focus on maintaining quality of life, eliminating pain, controlling infections, and preventing the progression or development of new oral diseases.

Obstacles to the dental care of people with AD differ in each phase, but the dentist must remember to include the caregivers, whether formal or not, in the treatment. Aggressiveness and limitations in communication progressively become more common, reinforcing the need to establish adequate levels of oral hygiene and preserve functionality as early as possible. Some skills need to be considered in the planning process, and dental health indices can be very helpful for the professional to assess the older person's ability to receive treatment and how much he or she can benefit from it.[9,10] The indices do not provide a treatment protocol for each stage of the disease but contribute to clinical reasoning by considering other individual characteristics that go beyond dental issues themselves.

Caregivers should be an integral part of the planning and guidance on performing daily oral health maintenance.[8] First, it is important to ensure that the individual with AD has the skills to perform oral hygiene, even if incompletely. If so, he or she should be encouraged.

The assessment of each individual's specific needs should be conducted by the dentist so that personalized oral hygiene protocols can be established to meet the particular demands of each case, such as difficulties opening the mouth, and to contemplate issues including the type of toothpaste that will be used, the need or contraindication of an electric toothbrush, the most appropriate interproximal hygiene device, and the use of mouthwash.[8,9]

The beginning of oral hygiene should involve separating the materials to be used, including gloves for the caregiver, preparation of the environment, and the way hygiene will occur, as shown in Figure 1. In addition, the dentist should be

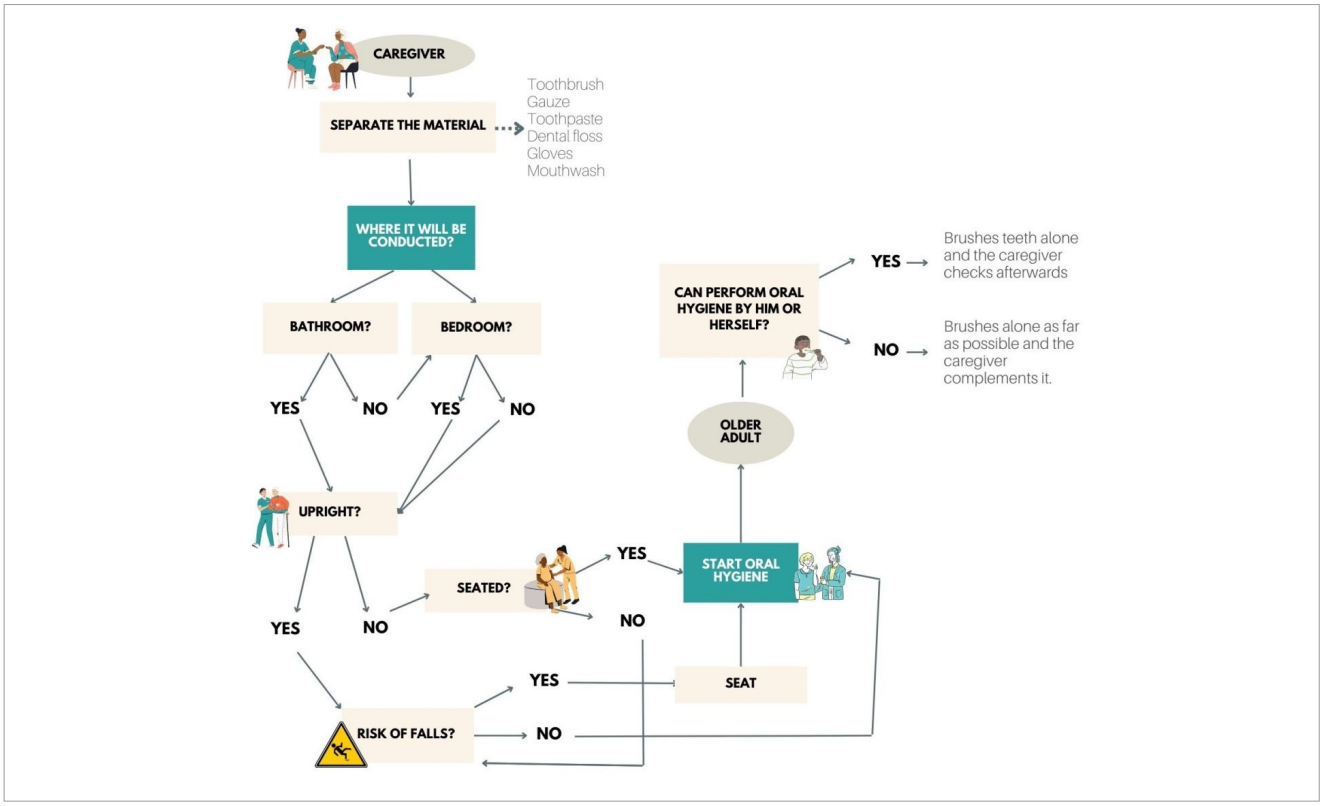

FIGURE 1. Flowchart for the performance of oral hygiene by the caregiver.

aware of the difficulties the caregiver may report in performing oral hygiene; difficulty opening and keeping the mouth open is one of the most frequently mentioned.

The suggested adaptations should be by the reality of the person with AD, the family context, and daily routine, and they ought to contemplate the information provided by the caregiver. The current recommendations suggest toothbrushing at least twice daily, covering all teeth and surfaces for at least 2 minutes.[8,10] If possible, interproximal hygiene of all teeth should be done with dental floss or an interdental brush of appropriate size at least once daily. In the presence of removable prostheses, they should be removed at night and cleaned every day using a specific brush and the indicated chemical products. The toothpaste for daily use must contain fluoride, especially considering this population's high prevalence of caries. In cases where caries activity is high, a toothpaste with higher fluoride concentration (5000 ppm) is recommended.[8]

Promoting oral health is also essential to healthy aging in terms of nutritional aspects. Poor oral health can negatively affect ADL and contribute to overall frailty considering specific pain-related challenges and impaired chewing and eating abilities that may exacerbate the existing comorbidities. With a functional dentition, the older person can enjoy well-balanced meals with various consistencies.[15]

Oral health integrates systemic health and contributes to well-being and quality of life. The most prevalent oral diseases in older persons, especially those with AD, are preventable and should receive attention years before the establishment and advance of cognitive impairment, making care and assistance more difficult. Formal or informal caregivers should be included in all stages of dental care and should receive guidance on how and with which products oral health maintenance should be performed.

The dentist must understand the continuum of AD to plan accordingly, considering the individual's limitations, prospects, and safety, keeping he or she always infection- and pain-free and comfortable with his or her oral health condition. Future studies should bring the best strategies to improve oral health care management for older adults with cognitive impairment.

Conflict of interest

The authors declare no conflicts of interest.

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Authors' contribution

ROA: conceptualization, methodology, visualization, writing – original draft, writing – review & editing. RGF: conceptualization, methodology, visualization, writing – original draft, writing – review & editing. RAL: methodology, visualization, writing – original draft, writing – review & editing.

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