

Alzheimer Disease and Oral Health

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Oral Health of the Elderly With Alzheimer's Disease

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Alzheimer Disease

Alzheimer disease is the most common form of dementia, a process characterized by development of neuritic plaques and neurofibrillary tangles, ultimately leading to cortical dysfunction and progressive neurologic damage.^[1] The prevalence of Alzheimer disease increases with age, and it is estimated that more than 13 million people in the United States may be diagnosed with Alzheimer disease by 2050.^[1] Patients with dementia experience higher rates of oral diseases than healthy persons, and they may present with a higher burden of periodontal disease markers, such as gingival bleeding.

Study Summary

This study by Ribeiro and colleagues provides data on the subjective and objective oral health findings of elderly patients diagnosed with Alzheimer disease. This cross-sectional study included 60 volunteer participants: 30 with various stages of Alzheimer disease (mild, moderate, and severe) and 30 without Alzheimer disease or other forms of dementia who served as the control group. Data obtained from the participants included dental and medical histories and sociodemographic characteristics, including age, educational level, and monthly income.

Subjective assessment of oral health problems was evaluated using the validated General Oral Health Assessment Index (GOHAI). The participants with Alzheimer disease completed the GOHAI in the presence of their caregivers, whereas the control participants completed their assessments independently. The GOHAI score could range from 12 to 36; scores of 34-36 are classified as high, scores of 31-33 moderate, and scores less than 30 low. Lower GOHAI scores indicated more self-reported oral health problems, and these participants were expected to have poorer oral health conditions.

Objective clinical examination used the decayed, missing, and filled teeth (DMFT) index, evaluation of biofilm and calculus on exposed teeth surfaces reflected by the Oral Hygiene Index (OHI), general evaluation, and stability of removable prostheses and presence of biofilm on these prostheses.

The major findings of this study were:

- The Alzheimer disease group presented at a more advanced age and had a lower education level than the control group;
- The GOHAI scores were similar between the Alzheimer disease group and the control group and were considered moderate, indicating a positive self-perception of oral health;
- The group with Alzheimer disease presented with a fewer number of natural teeth and higher DMFT and OHI scores, especially with advancing severity of Alzheimer disease, indicating worsening oral health compared with healthy control participants; and

- Upon analyzing removable prosthetic conditions, there was a significant association between the presence of oral pathology and Alzheimer disease.

Viewpoint

It is important to appreciate the differences in subjective and objective perceptions of health status, especially in individuals with conditions associated with cognitive impairment, such as Alzheimer disease. This study demonstrates the necessity of professional oral health evaluations at regular intervals in this population, because self-perception of oral health may differ significantly from clinically observed oral health.

Preventive oral health measures should be reinforced to patients with Alzheimer disease and their caregivers, because it may become more challenging to maintain and deliver oral healthcare in the context of advanced Alzheimer disease.^[2] As the US population continues to age, the prevalence of Alzheimer disease is expected to increase, and oral healthcare providers will play a critical role in the overall care of these patients.

Abstract

References

1. Turner LM, Balasubramaniam R, Hersh EV, Stoopler ET. Drug therapy in Alzheimer disease: an update for the oral health care provider. *Oral Surg Oral Med Oral Pathol Oral Radiol Endod.* 2008;106:467-476. [Abstract](#)
2. Friedlander AH, Norman DC, Mahler ME, Norman KM, Yagiela JA. Alzheimer's disease: psychopathology, medical management and dental implications. *J Am Dent Assoc.* 2006;137:1240-1251. [Abstract](#)

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