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Upfront

Katie Barge

Katie S. Barge is staff editor of the Journal of Dental Hygiene and staff writer for Access

Tooth Loss and Dementia May Be Linked

Tooth loss may predict the development of dementia later in life, reported researchers in the October issue of The Journal of the American Dental Association. Several past studies have shown that patients with dementia are more likely to have poor oral health. However, few researchers have examined the relationship to determine whether oral disease is a possible risk factor for developing cognitive impairments and dementia.

A team of researchers from the University of Kentucky College of Medicine and College of Dentistry investigated the relationships between tooth loss, dementia, and neuropathology in participants in the Nun Study, a longitudinal study of aging and Alzheimer disease among Catholic sisters of the School Sisters of Notre Dame.

The researchers used dental records and results of annual cognitive examinations to study participants from the order's Milwaukee province who were 75 to 98 years old. "Of the participants who did not have dementia at the first examination, those with few teeth (zero to nine) had an increased risk of developing dementia during the study compared with those who had 10 or more teeth," wrote the study's authors.

Dementia is a complex and multifactorial disease, and thus it is unlikely that one mechanism is completely causal. The researchers proposed several possible reasons for the association between tooth loss and dementia. In addition to periodontal disease, early-life nutritional deficiencies, infections, or chronic disease may result simultaneously in tooth loss and damage to the brain.

"Regardless of the issues of confounding and biological mechanisms, our findings suggest that a low number of teeth has an association with dementia late in life," concluded the authors. "It is not clear from our findings whether the association is causal or casual." The authors state that further studies are necessary to determine the true nature of the association between tooth loss and dementia.