

AAN MEETING: Periodontal Disease May Increase Risk Of Stroke

TORONTO, ON -- April 21, 1999 -- People with periodontal disease are more likely to have thickened carotid arteries, which can lead to stroke and heart disease, according to a study released at the American Academy of Neurology's 51st annual meeting in Toronto.

For the study, 52 people who had never had a stroke were given oral exams and ultrasound tests to determine the thickness of their carotid arteries, which are the two main arteries in the neck supplying blood to the head.

The people with the most periodontal disease had the most thickening of the arteries. On average, the carotid artery wall was thicker by about one-half millimetre in the group with the most periodontal disease than in the group with the least periodontal disease.

"This means that periodontal disease may not just present a problem with oral hygiene and pose a risk for loss of teeth, but it may in fact present a problem with cardiovascular health and loss of neurological function or loss of life as well," said study author and neurologist Mitchell Elkind, MD, of Columbia University in New York.

Elkind said larger, prospective studies are needed to confirm these findings. If the findings are confirmed, researchers would need to study ways to reduce periodontal disease to prevent stroke.

"Dentists may need to treat periodontal disease more aggressively and refer patients with severe disease to doctors for evaluation of the risk for stroke and heart attack," Elkind said. "Doctors who care for patients with strokes will need to take into account their patients' periodontal status and may need to refer them to dentists."

Researchers could also examine whether the number of strokes could be reduced by methods such as using antibiotics against the periodontal infection, extracting teeth in the infected area or cleaning people's teeth more often.

Researchers are still investigating the relationship between periodontal disease and atherosclerosis, or thickening of the arteries. They believe that certain infections may cause long-lasting inflammation and activation of the white blood cells. Inflammation in the blood and walls of blood vessels may cause hardening of the arteries and also make the blood more likely to clot, precipitating events like heart attacks and stroke, Elkind said.

"This is important since the established risk factors for stroke and heart disease -- diabetes, high blood pressure, smoking, high cholesterol -- fail to account for all cases," he said. "This new hypothesis about the role of inflammation may allow us to understand an additional cause of atherosclerosis and treat it better."