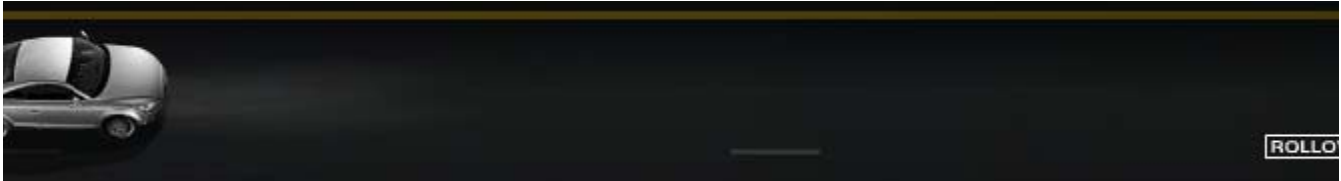


Chronic gum disease linked to risk of tongue cancer

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Toronto — If the risk of losing all your teeth to gum disease isn't incentive enough, researchers have found another preventative reason to brush and floss religiously — tongue cancer.



cancer due to chronic periodontal disease increased fivefold with every millimetre of lost alveolar bone — the bone in the jaw that holds teeth in place.

Periodontal disease is a chronic bacterial infection that affects the gums and bone supporting the teeth. It begins when the bacteria in plaque — the sticky, colourless film that forms on teeth — causes the gums to become inflamed. An estimated 15 per cent of Canadian adults have the condition to varying degrees.

“We expected to see an association, given the results of earlier studies linking chronic infections and inflammation to cancer risk in other organs,” said lead author Dr. Mine Tezal, a professor of periodontics and endodontics at the University of Buffalo and a research scientist at Roswell Park.

“But we didn't expect to see such a clear association with a relatively small sample size.”

In the 1999-2005 study, the researchers compared panoramic (full-mouth) dental X-rays of 51 males newly diagnosed with tongue cancer against those of 54 men without cancer. Bone loss measurements were made by the same periodontist, who did not know the cancer status of any of the participants.

After adjusting for potential effects of age, smoking status and the number of existing teeth, researchers found that the men with chronic gum disease were 5.2 times more likely to have tongue cancer with every millimetre of bone loss than those without gum disease.

“Periodontitis is a chronic disease that progresses very slowly,” said Dr. Tezal. “Seeing alveolar bone loss on X-rays indicates the infection has existed for decades, making it clear that periodontitis preceded the cancer diagnosis, and not vice versa.”

The link between periodontal disease and tongue cancer existed even among non-smokers, the researchers concluded.

“It's a very important thing to find out that this association is independent of smoking,” Dr. Tezal said from Amsterdam, where she was attending a dental conference. “Because most people would think it's their smoking that's causing the association.”

A larger study by Dr. Tezal and colleagues, as yet unpublished, has found a similar tongue cancer risk for women with periodontal disease.

It's theorized that over time, bacteria — and the toxins and enzymes they produce — cause genetic alterations in specific cells in the tongue, which then become cancerous.

“The link between chronic inflammation and cancer has been suspected for many years,” said Dr. Tezal, noting that inflammation can be prevented or arrested with proper hygiene.

“If you don't have periodontal disease, try to avoid it by good oral hygiene. If you have periodontal disease, get treatment.”

Commenting on the study, Ottawa periodontist Dr. Charles Alleyn said research has illustrated an association between gum disease and a number of medical conditions, including heart disease, stroke and diabetes.

“These are not cause and effect,” said Dr. Alleyn, the periodontal representative for the Canadian Dental Association's committee on specialist affairs. “You have to be very careful. You can't say that one causes the other.”

Still, he said “it's important to know that there is an association. . . It certainly caught my attention.”

Tongue cancer is often not diagnosed until it is more advanced. Signs include white and red or just red lesions that don't heal, unlike canker sores. These lesions may be painful, but not always.

“That's the kind of thing you want to go and get checked out,” said Dr. Alleyn, noting that he always examines a patient's mouth and tongue for possible malignancy.

“The oral cavity is not a separate entity, it's part of the whole body,” he said. “And when things are going on within the mouth, it may be a reflection, a mirror, of what's going on in the rest of the body.”

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