Periodontal Classification and the Evidence

The April issue of *Ontario Dentist* contained an article titled, "The New Classification Scheme for Periodontal Diseases and Conditions," and the Editorial, "In a Boat With a Very Small Paddle," discussing the efficacy of scaling and root planning in treating gingivitis and reducing probing depths.

I see flaws in the new classification system. It focuses on what has happened (clinical attachment loss, pockets, bone loss), not on what is happening (biofilm accumulation, bleeding on probing (BOP), and papillary bleeding score). Without identifying the type of bacteria and amount of biofilm accumulation, along with bleeding indices showing active infection, we have no basis for determining stable/healthy or unstable/diseased states due to the bacterial biofilms present and the patient's immune response to them. This leads to under-diagnosing disease in healthy-looking mouths.

Periodontal disease is first and foremost a bacterial infection. Not once are bacteria mentioned as the cause in the new classification system. There is no recommendation for a test to show the type/number of bacteria that cause the disease and its oral and systemic effects. The presence of bacteria does not equal infection but the risk of it. If diabetes and smoking are mentioned as risk factors, should not the cause also be classified? To see biofilm, patients need to be disclosed, yet there is no mention in the classification system of grading biofilm accumulation as a measure of risk. There are no bleeding indices recommended to assess the presence of active disease besides BOP. BOP is a poor representation of the degree of infection compared to other bleeding indices. Healthy mucosa does not bleed. One needs to measure the type and amount of bleeding to determine if the biofilm control by the patient is effective and if the patient has their disease under control.

All of this is very important in light of the April issue's Editorial, in which Dr. Quiñonez quotes: "For adults without severe periodontitis who regularly access routine dental care, routine scale and polish treatment makes little to no difference to gingivitis, probing depths and oral health-related quality of life over two to three years follow-up [...]." It is true; scaling does not prevent periodontal disease. If it did, patients would not have bleeding/infection on their next visit. It does, however, disturb biofilm and smooth roots. Scaling can and does seed the bacteria into healthy areas and slows the progress of disease for most by indirectly disrupting subgingival biofilms. However, effective biofilm disruption and disturbance by the patients in locations that dental professionals treat to obtain pockets of four mm or less, combined with killing the pathogens in saliva, sub- and supra-gingivally, and on the tongue and throat can control the pathogens. This prevents gingivitis and periodontitis, as it creates an oral environment in which patients can maintain a healthy condition.

Ultimately, to control periodontal disease, one needs the patient to remove and disturb their gingival biofilms more than tooth biofilms. Floss cannot physically remove gingival biofilms. It is impossible. The interproximal tissues are concave, and one cannot floss that shape. One needs interproximal aids such as Soft-Picks®, Stim-U-Dent Plaque Removers, or the equivalent to achieve tooth and gum cleaning. The bleeding stops in three days when these are used, guaranteed.

So, the evidence is there: flossing and scaling do not control periodontal disease. Only effective biofilm control by the patient does. We have been recommending this forever with poor results. It is time our profession took a different approach to diagnosing and treating periodontal disease, when 75 per cent have bleeding gums despite our best efforts. If we continue to recommend care that is ineffective, we put our patients' oral and systemic health at risk.

Dr. Jim Hyland
Scarborough, ON