Dr. Thomas Nguyen - A New Classification Scheme for Periodontal and Peri-Implant Diseases and Conditions

Chiraz: Last November, the World Workshop on the Classification of Periodontal and Peri-implant Diseases and Conditions was held in Chicago. The ensuing classification scheme is vital for clinicians to properly diagnose and treat patients and support research on periodontal diseases. The workshop was based on 19 review papers and 4 consensus reports. We will bring you today the digest of that knowledge and information. We have invited Dr. Thomas Nguyen, Periodontist and Instructor in Oral Medicine, Infection and Immunity at the Harvard School of Dental Medicine. Dr. Nguyen, thank you very much for being with us today, welcome to CDA Oasis.

Dr. Nguyen: It’s always a pleasure and thank you for having me today.

Chiraz: To kick off the conversation, can you please tell our audience what the workshop is about and why did it take place?

Dr. Nguyen: So, it’s a very good question and I’m sure a lot of people are asking the same question. To understand why we needed a workshop on the new classification, we need to go back on the previous classification, which was done in 1999. So, back 20 years ago, one, we had a lot of new information that came out as population studies, basic science investigations and also prospective studies. And also, back in those days, dental implants were not part of the classification. As you know today, more and more people are having dental implants and the diagnosis and treatment of implant disease has become an integral part of periodontology. So, the newer classification was intended to address some of those issues. If you want to find out more about the proceeding of the workshop, I would encourage you to read the Caton paper, which is an excellent summary and introduction to the new classification.

Chiraz: So, why is it important for Canadian dentists to know about the outcomes that this workshop?

Dr. Nguyen: I know there will be a lot of resistance anytime that there’s a new classification, but I would even say it is extremely important for dentists all over Canada and around the world to know about this new classification, because it was a joint effort between the American Academy of Periodontology, the European Federation of Periodontology and experts from all over the world. So, slowly but surely, this new classification will become the main way to diagnose periodontal disease, to communicate between dentists, specialists and health care providers, and also to explain and interact with patients and the insurance companies. So, the sooner we get into this new classification, the better it will be.

Chiraz: So, we get to the most important part of our conversation. What are the outcomes of the workshop?
Dr. Nguyen: Some of the noteworthy changes from the 1999 classification, and there's a lot of changes, but I'll only cover the main ones today. One is, because of lack of evidence between chronic periodontitis and aggressive periodontitis being two different diseases; now, they will be grouped under the same classification. This is a big change since the Armitage classification. Now, periodontal disease will be classified as grade 1 through 4 and stage A to C. We can go into detail a bit more later, but also another noteworthy thing is once a patient has periodontitis, he will be forever a periodontitis patient. You cannot revert from periodontitis to health condition. And this was inspired by a patient having diabetes because for sure if you have a high HbA1c and you become controlled, you're still a diabetes patient whatever you do.

Dr. Nguyen: And the same is true with periodontitis patients. They may be controlled, they may not have inflammation, but they have loss of clinical attachment. they sometimes have recessions, furcation involvement, so it's a lot harder for them to be maintained and there's a higher risk for them to have a disease progression. This is why once we treat them, we will always keep them on close recall. And this is very important for patient management. The other thing is, they've added a multidimensional staging and grading for periodontitis and also, they take into consideration systemic health in the new classification. So, certain things that we know that will influence the outcome of treatment and progression of disease, such as diabetes and smoking, will now be taken into the classification. This is something that we used to do on a day-to-day basis without really thinking about it, but now will help practitioners and clinicians to better assess the situation with those patients

Chiraz: So, I can see a lot of implications; and something that stuck with me, while you were detailing some of the outcomes of the workshop, is the fact that a periodontitis patient is now a periodontitis patient for life. What are the implications for the everyday practice? How does that change for day-to-day clinical practice?

Dr. Nguyen: This is main reason why the new classification was done. One is to help the practitioner better diagnose periodontal disease, be able to know when to refer, because we know that the vast majority of patients that we see, 80% of them will react very well to non-surgical therapy, surgical therapy, and we will be able to maintain them pretty well. But, according to studies, there's a big 20% of the population who, whatever treatment we do, will not reacted those treatments. And the reason why is because periodontitis is a multifactorial disease. It's not only about plaque or calculus, but it's also about systemic factors; and this new classification was aimed to target those patients specifically so we can better manage them. Any patient that goes into a grade 1 or 2 are part of the 80% that people can treat very well and anything that's grade 3 and 4, those are patients who needs to be referred to a periodontist and work in a multi-disciplinary way with healthcare providers, family doctors; and all that to be able to manage different patients. And the classification seems very complicated at first, but basically, the first thing that we need to ask is this a grade 1 or 2 patient or 3 or 4? Once that is done, you only need to differentiate between grade 1 and 2 if that's a part of the 80% that you want to treat or grade 3 or 4. The difference is grade 3 can be properly managed by a
periodontist, but grade 4 requires something more like a multi-disciplinary approach where there’s a full-mouth rehabilitation that needs to be done. So, when we dig deeper into that classification, I think it’s very user friendly, and it’s really made for us to save time and know how to direct and address the patients.

Chiraz: What are some of the additional outcomes or impacts of these results? And I am thinking about peri-implant diseases. Is there anything related to that?

Dr. Nguyen: Yes, of course. peri-implant diseases is a big part of this new classification. Now, in the classification, we have peri-implant health, peri-implant mucositis and then classification for peri-implantitis. Additionally, and these are very interesting facts, there's a difference between having gingival inflammation at one or many sites compared to having gingivitis. So now the cut-off is if the patient has just one or two sites with inflammation, which I'm sure everyone among dentists and the general population have inflammation and they're not really considered gingivitis, the cut-off would be more than 10% of the sites. This is a big difference from the old Armitage classification when as soon as you have inflammation you have gingivitis, as soon as you have clinical attachment loss, you have periodontitis. Now, the main thing is having an interproximal clinical attachment loss in at least two non-adjacent sites because sometimes you can have fracture which is localized attachment loss in one tooth, and it doesn't mean that the patient has periodontitis. Also, some interesting changes are the term periodontal biotypes, it’s now called periodontal phenotypes, excessive occlusal forces, now traumatic occlusal force, and biological width is now called supracrestal attachment tissues. So, these are in summary, most of the smaller changes of the classification.

Chiraz: Thank you very much Dr. Nguyen. That was quite an interesting and eye-opening conversation. We will have all the resources that you mentioned included in the post along with the video, The article and the tables. And, I wish you all the best in your endeavors and I hope to host you again on Oasis.

Dr. Nguyen: Thank you very much for having me today. It was really fun and I'll be happy to come back anytime to talk to you about classifications and periodontal disease.