Study questions preventive dental visit intervals

The preliminary results of the Periodontal Disease Prevention Study, conducted by researchers at the University of Michigan School of Dentistry in Ann Arbor, show that almost 14 per cent of patients who had one dental visit and about 16 per cent of the patients who had two dental visits had undergone tooth extractions.

The researchers enrolled approximately 5,400 male and female adults, who were mainly teachers from Michigan above 50 years of age, from a large dental database with more than 16 consecutive years of documented history. The participants had to provide DNA samples and information on possible risk factors, such as diabetes and smoking, in order to determine whether they were at a high or low risk of developing periodontitis. The researchers also used the PST Genetic Susceptibility Test, a genetic test developed by Interleukin Genetics, the collaborating company of the study, that analyses two interleukin genes for variations that identify an individual’s risk for periodontal disease, in order to identify individuals with increased risk.

Low-risk patients (47 per cent of the study population) were identified as non-smokers, genetically negative to the PTS test and with no history of diabetes. High-risk patients were defined as having one or more of these risk factors.

The researchers found that the second dental cleaning did not reduce the risk for tooth loss in low-risk patients, while high-risk patients benefitted from additional dental care. Over the monitored period, only about 17 per cent of high-risk patients who had visited the dentist twice a year had undergone extractions, while more than 22 per cent of high-risk patients who had consulted the dentist only once in the same period had undergone extractions.

According to Dr Lewis Bender, CEO of Interleukin Genetics, the data from the study appears to question the conventional one-size-fits-all model for preventive dental visits for adults, especially in the low-risk population.

“We believe that patients who have none of the major risk factors have a much lower progression rate for the disease. The frequency of cleaning in those low-risk individuals thus can be longer than in persons with a risk factor,” Bender told Dental Tribune.

The researchers estimate that 8 to 15 per cent of adult Americans have moderate to severe periodontitis, which can lead to tooth loss if the disease is not diagnosed early and treated properly. Other studies have associated periodontitis with heart attacks, strokes and other systemic disease.

As the study data is still being analysed for secondary endpoints, the researchers could not provide final recommendations yet. They are currently working on a manuscript and hope to publish the final result within the next six months.