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Dear reader,

“I this tooth is hard to pull out.”

Dr Carsten Appel

The International Diabetes Federation publication Guideline: Oral Health for People with Diabetes addresses the reported bidirectional relationship of diabetes mellitus and periodontal disease. It has long been recognised that periodontitis is a complication of diabetes mellitus, and periodontitis has been suggested as the sixth clinical complication of diabetes. More recently, data has been published that suggests that metabolic control in diabetes is adversely affected by periodontitis. The mechanism that accounts for this association is the production of inflammatory mediators in the periodontal tissues, with a resultant elevation of serum levels of these mediators, leading to the desensitisation of peripheral insulin receptors.

The guideline group that prepared and wrote this report addressed two questions: “What level of surveillance for periodontal disease should be recommended for people with known diabetes?” and “Is active management of periodontitis particularly recommended for people with diabetest?”. In response to both questions, the guideline group concluded that the evidence does not support an affirmative answer to either of these. Despite these conclusions, the publication provides recommendations for oral health care for persons with diabetes. These include an emphasis on the need to educate patients with diabetes that their periodontal health can be adversely affected by diabetes, the importance of regular personal and professional oral health care, and the need for periodontal care if periodontal disease is present.

The findings presented in this document are surprisingly limited in scope. While it is recognised that the committee did not have specific instructions regarding the amount of evidence required in order to be able to make a recommendation, the literature reviews cited in the guideline document provided solid evidence that periodontitis is more severe in patients with diabetes.

Furthermore, while evidence suggesting that periodontal treatment can improve glycaemic control in patients with diabetes is not as solid, the trend observed in these studies is that the greatest beneficial effects are seen in cases in which the glycaemic control is very poor. It can thus be deduced that these patients require the most attention, as they are at the greatest risk for clinical complications of diabetes.

The provision of appropriate oral care to patients with diabetes mellitus will improve oral health, which in itself is a desirable outcome. Diabetes is a chronic disease that patients must manage on a daily basis. Appropriate oral health care, with a focus on prevention, can lead to a lifetime of good oral health, efficient mastication and a better diet, the last two of which can have important positive effects on weight control. Weight control is critical for glycaemic control.

Another important consideration is the likelihood that patients who undergo periodontal treatment will have diabetes and not be aware of their diagnosis. In the US, approximately 25 per cent of patients with diabetes are not aware that they have diabetes.

Given the increased prevalence of periodontitis in this patient group, careful examination by a dental professional (in identify advanced periodontal disease) and a thorough health history (that is, family history of diabetes, or a report by the patient of excessive thirst, urination and/or hunger) can suggest the need for evaluation of diabetes. If dental professionals are to assume this more active role, they need to be familiar with all aspects of diabetes mellitus, including risk factors, health history and clinical complications, and treatment approaches. This may require additional training, but the outcome will be the improved general health, not only oral health, of patients treated in the dental practice.

The guideline document is important because it focuses attention on the oral health of the increasing number of patients across the globe with diabetes. Dental disease is a component of the diabetes clinical spectrum. Additional studies appear in peer-reviewed journals each month. Thus, the findings regarding the bidirectional relationship of diabetes mellitus and oral health presented in this guideline document are not final.