



Periodontal Therapy & Type 2 Diabetes

Source: J Clin Periodontol. 2011 Feb; 38(2): 142-7.

Title: A randomized controlled trial on the effect of non-surgical periodontal therapy in patients with type 2 diabetes. Part 1: effect on periodontal status and glycemic control.

Authors: Koromantzos PA, MakrilakisK, et al.

Overview: This study assessed the effect of non-surgical perio therapy on glycemic control in type 2 diabetic individuals with moderate to severe periodontitis.

Summary:

- A total of 60 patients with moderate to severe periodontitis enrolled in the study
- Patients assigned to a treatment arm consisting of SRP or a delayed treatment group, receiving SRP after 6 months
- Periodontal parameters and HbA1c levels evaluated at 1, 3 and 6 months.

Results and conclusions:

- All perio parameters improved significantly in the treatment group
- HbA1c levels decreased statistically significantly more in the treatment group vs the delayed treatment group independently of other confounders
- Study provides evidence that periodontal treatment contributes to improved glycemic control in type 2 diabetics. Larger studies needed to confirm these findings.

Key take-aways:

This study demonstrated a positive effect on glycemic control as a result of non-surgical periodontal therapy. Any level of improvement in diabetic control is worthwhile since diabetic complications are life altering and life threatening.

Implementation Strategies: This study confirms what many of us have already seen with our own eyes in our patients' mouths; following periodontal therapy diabetics have a two-fold improvement, their blood sugar is more stable and their periodontal disease is more manageable.

More importantly, this research provides the clinician with the needed *scientific backup support* to treat periodontal disease in the diabetic patient as early as possible. Although this study used patients with moderate to severe gum disease, treating a diabetic with early or Case Type II periodontal disease will yield the same improvements.

Case typing is a critical step in the treatment of all periodontal diseases. Unfortunately, many clinicians are too conservative when they case type. It's important to review these guidelines on a regular basis with all team members to ensure continuity of care and consistent diagnosis.

Compare the ADA Case Types listed below:

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Type II / Early Perio

Clinical Findings **may** include:

- Bleeding upon probing in active phase
- Pocket depths or attachment loss of 3 to 4 mm
- Possible Class I furcation invasion
- Localized areas of recession

Radiographic signs **may** include:

- Horizontal bone loss, most common
- Alveolar bone level 3 to 4 mm from CEJ
- Slight loss of the interdental septum

Type III / Mod Perio

Clinical Findings **may** include:

- Bleeding upon probing
- Pocket depths or attachment loss of 4 to 6mm
- Class I and/or II furcation invasion
- Tooth mobility of class I

Radiographic signs **may** include:

- Horizontal or vertical bone loss
- Alveolar bone level 4 to 6 mm from CEJ
- Radiographic furcations of Class I and/or II
- Crown to root ratio is 1:1 (loss of 1/3 of supporting alveolar bone)

Type IV / Adv Perio

Common clinical findings include:

- Bleeding upon probing
- Pocket depths or attachment loss over 6mm
- Class II and/or class III furcations
- Tooth mobility of class II or class III

Common radiographic findings include:

- Horizontal and vertical bone loss
- Alveolar bone level 6mm or more from CEJ
- Radiographic furcations
- Crown to root ratio is 2:1 (loss of >1/3 of supporting alveolar bone)