JADA+ CLINICAL SCANS

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A DESICCANT AGENT AS AN ADJUVANT TO SCALING AND ROOT PLANING IMPROVES CLINICAL PARAMETERS IN PATIENTS WITH CHRONIC PERIODONTITIS AND GOOD PROGNOSIS UP TO 1 YEAR AFTER TREATMENT

Isola G, Matarese G, Williams RC, et al. The effects of a desiccant agent in the treatment of chronic periodontitis: a randomized, controlled clinical trial [published online ahead of print June 17, 2017]. *Clin Oral Investig.* http://dx.doi.org/10.1007/s00784-017-2154-7.

Key words. *Periodontics*; adjunct treatment; chronic periodontitis; desiccants; scaling and root planing; randomized clinical trial.

Clinical relevance. There is still no consensus about whether an adjuvant treatment can improve clinical outcomes for sites with periodontal pockets compared with scaling and root planing (SRP) alone. Maximizing the potential benefits of SRP is crucial, especially at sites with deep periodontal pockets.

Study summary. The researchers conducted a split-mouth randomized clinical trial (RCT) to assess the effects of a desiccant agent (DA) as an adjunct treatment to SRP in patients with chronic periodontitis. They enrolled 36 participants* with chronic periodontitis and at least 2 teeth in each quadrant that had probing depths of 5 millimeters or more. The researchers assigned 1 maxillary quadrant to receive a DA† plus SRP and the other maxillary quadrant to receive SRP‡ alone. After 1 year, all sites exhibited improved clinical parameters compared with baseline, regardless of whether they received a DA. Quadrants that received a DA plus SRP had, on average, an additional 0.93 mm of probing depth reduction, an additional clinical attachment level gain of 1.2 mm, and 29% fewer sites with bleeding on probing compared with quadrants that received SRP alone. The improvements in plaque score and gingival recession were not different between the quadrants that received and did not receive DA. The researchers did not observe any adverse events.

Strengths and limitations. This RCT had a low risk of bias. The researchers assigned the quadrants to receive DA plus SRP or SRP alone using appropriate methods, and thus the groups were balanced with regard to their clinical characteristics before the start of the treatment. In addition, participants in this split-mouth RCT acted as their own controls, further reducing any concern about group imbalances. Both participants and the researchers who measured the outcomes did not know what treatment the quadrant had received, minimizing any risk of bias owing to participant behavior or outcome measurement. Furthermore, all participants were examined at the end of a 1-year follow-up. The researchers reported that a DA as an adjuvant to SRP improved probing depths, clinical attachment levels, and bleeding on probing. Although plaque score and gingival recession did not show improvement, it was unlikely that they would as a result of the use of a DA, so this is not a concern. Although the use of a DA seems promising, clinicians must consider whether the benefits are large enough to be important to patients and that the researchers of this study followed participants up to only 1 year after treatment, which is a short period. Finally, given the study's inclusion criteria, this evidence is more likely to apply to patients who are nonsmokers, have no systemic conditions, and have teeth without detectable mobility. ■

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* 47% female; at least 6 teeth per quadrant; 40% or more sites with bleeding on probing; no furcation involvement.

† Hybenx (EPIEN Medical) was applied in the periodontal pockets for 60 seconds before scaling and root planing.

‡ Scaling and root planing was performed with hand and ultrasonic instruments.