

Pocket-X® Gel



 BioMeDent.

Pocket-X[®] Gel

In Situ liquid to gel

Protect and Improve Healing

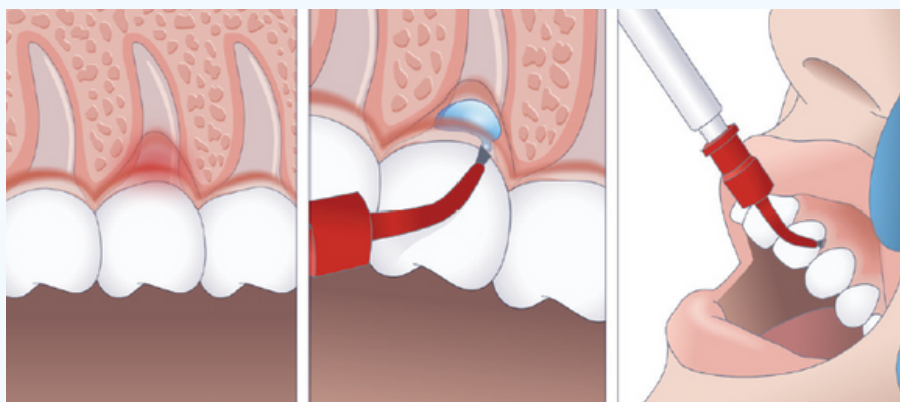
Achieve Exceptional Periodontal Treatment Results for You and Your Patients

In conventional periodontal therapy, scaling and root planing (SRP) is commonly used. However, SRP has limitations, particularly in its ability to eliminate all periodontal pathogens and effectively treat deeper pockets. As a result, periodontal pockets remain vulnerable to bacterial recolonization, which can undermine the benefits of SRP within just 2-3 months after treatment.

To ensure consistent success, it's essential to use a product that effectively protects against bacterial re-infection—this is where Pocket-X[®] Gel comes in.

What Pocket-X[®] Gel Does:

➤ Pocket-X[®] Gel acts as a barrier, preventing bacteria from entering and re-infecting periodontal pockets, significantly enhancing the results of your treatment.



One Syringe, Many Pockets

Pocket-X® Gel is conveniently packaged in boxes of 3 syringes, each containing 1.0 ml of gel.

Typically, one syringe is sufficient to treat 5–10 periodontal pockets in a single patient.

To simplify application, each syringe includes both a long blue tip and a short red tip with a brush.



How Does Pocket-X® Gel Work?

➤ **Target. Protect. Improve Healing.**

Pocket-X® Gel works by targeting and filling even the hardest-to-reach periodontal pockets, providing effective protection.

- **Liquid-to-Gel Transformation:** At room temperature, the gel is initially liquid but transforms into a viscous gel within seconds of application.
- **Prolonged Protection:** After permeating the pocket in its liquid form, the gel solidifies, offering extended protection.
- **Prevents Bacterial Recolonization:** By creating a protective barrier, it shields pockets from bacterial re-entry.
- **Improves Gingival Healing:** Supports the healing process for healthier gums.

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Innovative, Thermo-Sensitive Gel Composition

Pocket-X® Gel is a thermo-sensitive hyaluronic acid gel containing an octenidine preservation system, designed as an adjunctive treatment to scaling and root planing. It provides a healing-promoting effect, benefiting not only initial therapy but also post-periodontitis maintenance programs and peri-implantitis treatment.

Synergistic Healing Effects

The gel's barrier effect and its prevention of bacterial recolonization work synergistically to support better wound healing and stabilization, ensuring long-lasting results.



Physical Mode of Action

After scaling and root planing, Pocket-X® Gel is delivered into the periodontal pocket, where it acts as a filler for volume restoration. This physical mode of action prevents new bacteria from entering and re-infecting the pocket.

Patented Composition

Pocket-X® Gel features a unique blend of ingredients:

- Poloxamer: A thermo-sensitive polymer that enables the gel to transition from liquid to gel at body temperature.
- Hyaluronic Acid (HA): Known for its elasticity and hygroscopic healing properties.
- Octenidine Hydrochloride: An antimicrobial preservative that ensures the gel remains effective in protecting against bacteria.

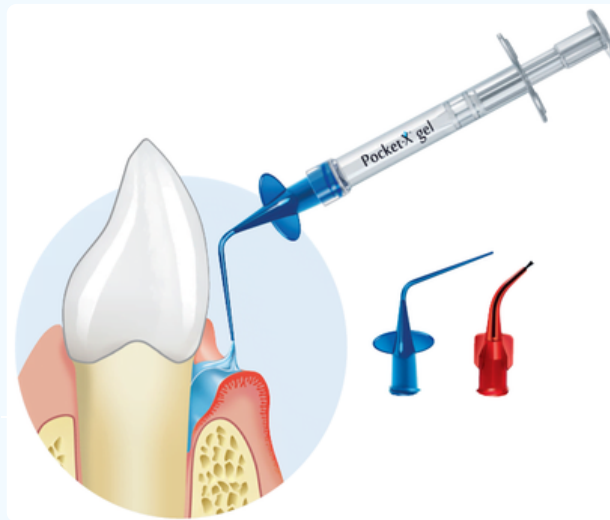


Easy to Administer

Thanks to its low viscosity at room temperature, Pocket-X® Gel can easily penetrate even the deepest and hardest-to-reach areas of the periodontal pocket, ensuring optimal coverage. Each syringe contains 1 ml of gel, enough for multiple pockets of any size, and is ideal for both initial treatment and periodontal maintenance.

Chlorhexidine-Free Formula

Pocket-X® Gel's chlorhexidine-free formula means no tooth discoloration, no toxic degradation by-products, and no photo-sensitivity, offering a safer and more patient-friendly treatment.



Convenient Application

Each syringe is supplied with two head tips: a fine, elongated blue tip to access the deepest pockets and a red, short tip with bristles for easier application.

The Science Behind Pocket-X® Gel

A randomized clinical study with 34 patients diagnosed with stage 3 periodontitis (split-mouth design) demonstrated the effectiveness of Pocket-X® Gel:

- Test Group: SRP combined with Pocket-X® Gel, applied immediately after SRP and again one month later.
- Control Group: SRP only, with no additional treatment.

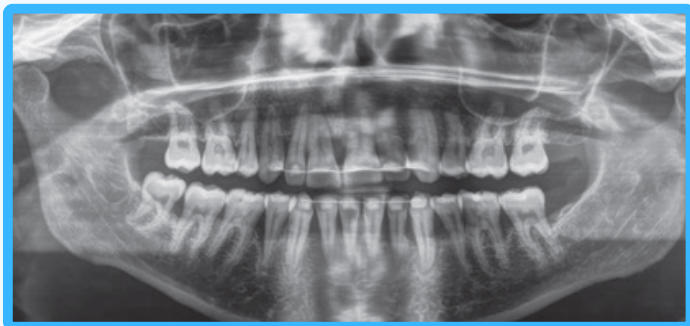
The results highlighted the benefits of adding Pocket-X® Gel to conventional SRP, particularly in terms of reduced bacterial recolonization and enhanced healing.

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Professional viewpoints from Prof. Dr. Peter Hahmer

Prof. Dr. Peter Hahner,
Professor of Clinical Periodontology and Prevention Management at EU FH, Practice for
Periodontology in Cologne

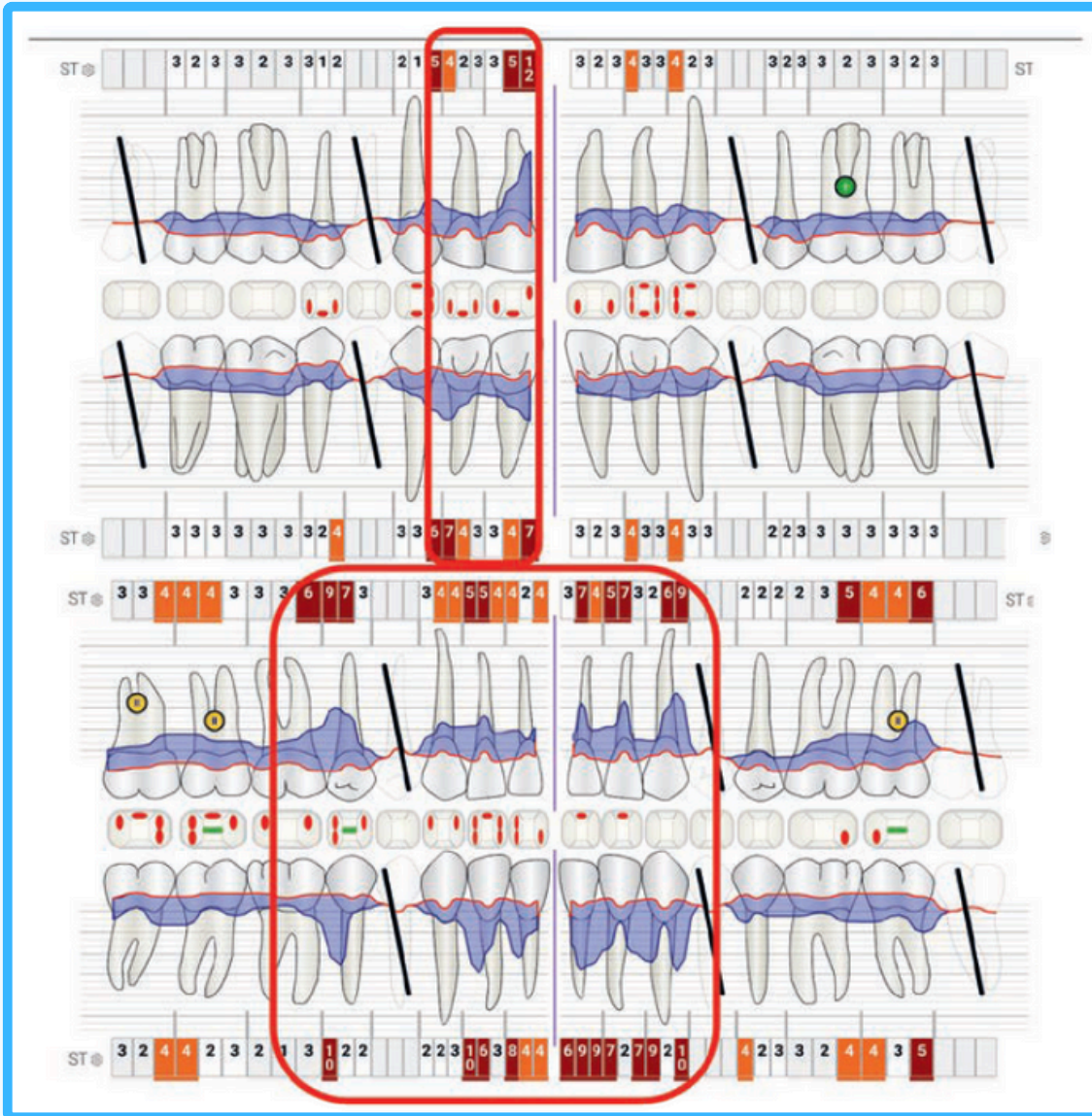


Initial assessment (patient born in 1990)
The X-ray reveals substantial bone loss in multiple regions. Previous nonsurgical treatments by other practitioners did not succeed in stopping the ongoing tissue deterioration.



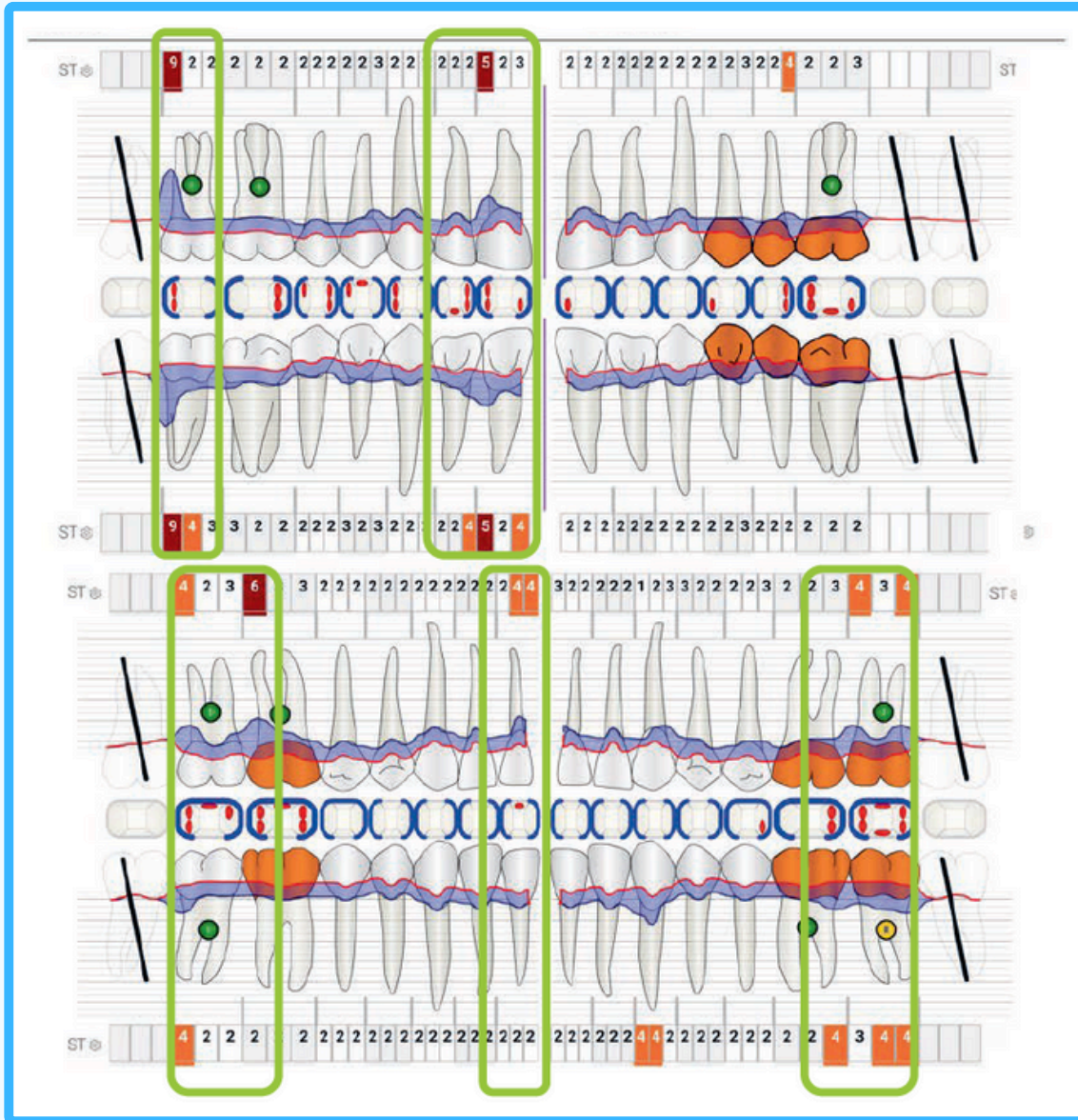
Atraumatic approach as the foundation

An atraumatic technique during subgingival instrumentation seems essential for promoting optimal wound healing. The provided illustration (from a different patient) shows minimal bleeding from periodontal pockets immediately following debridement.



Findings and Treatment

As part of the initial therapy (Stage 2), both supra- and subgingival mechanical plaque removal were performed, including the application of Pocket-X® Gel in October 2022.



Follow-Up

Examination (April 2023, 5 Months Post-Treatment)

The outcomes for this case were highly favorable, with a significant reduction in the number of sites requiring surgical intervention.



Professional viewpoints from Prof. Dr. Peter Hahmer

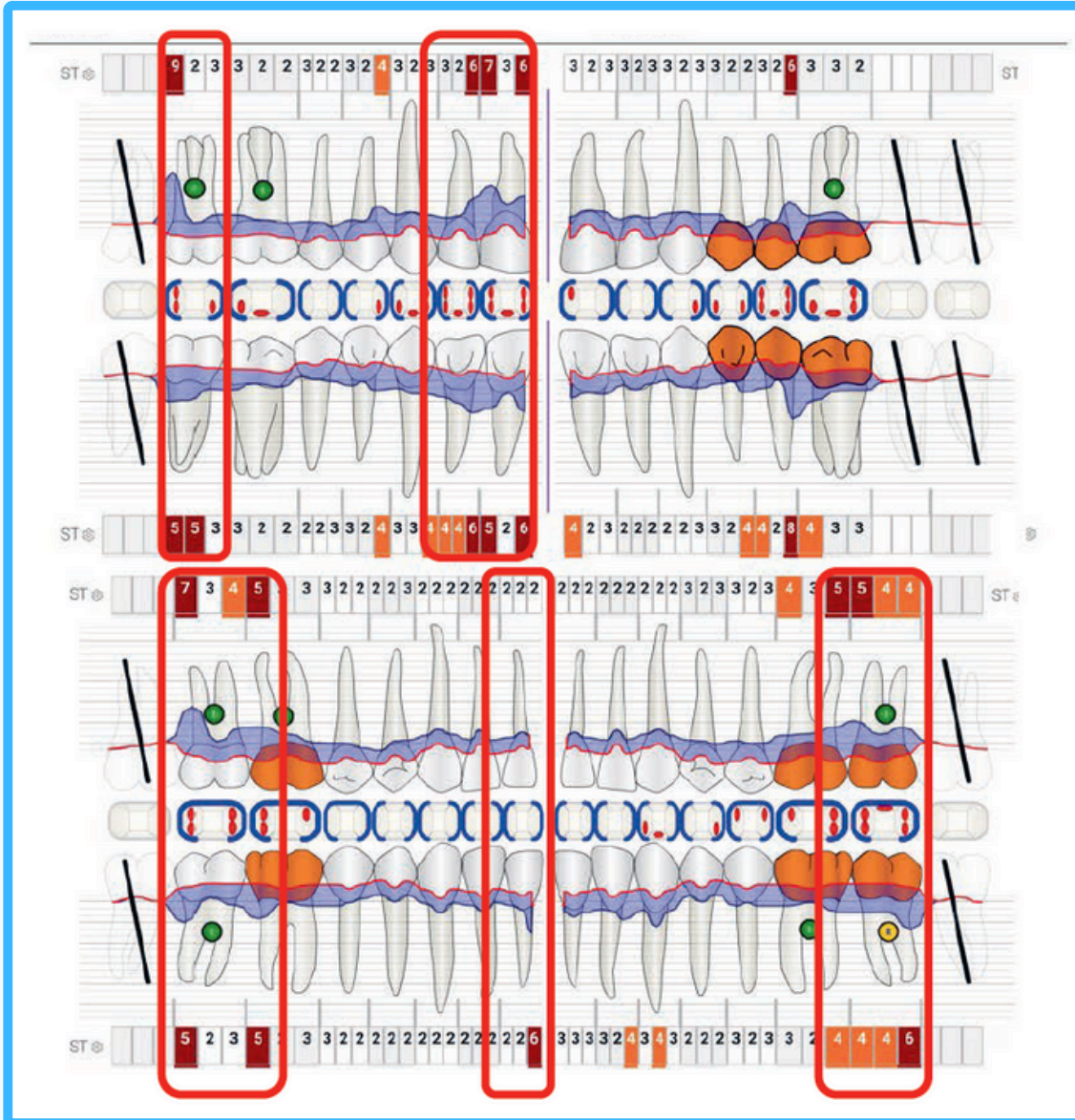
Prof. Dr. Peter Hahner,
Professor of Clinical Periodontology and Prevention Management at EU FH, Practice for
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Patient Assessment (Born in 1962)

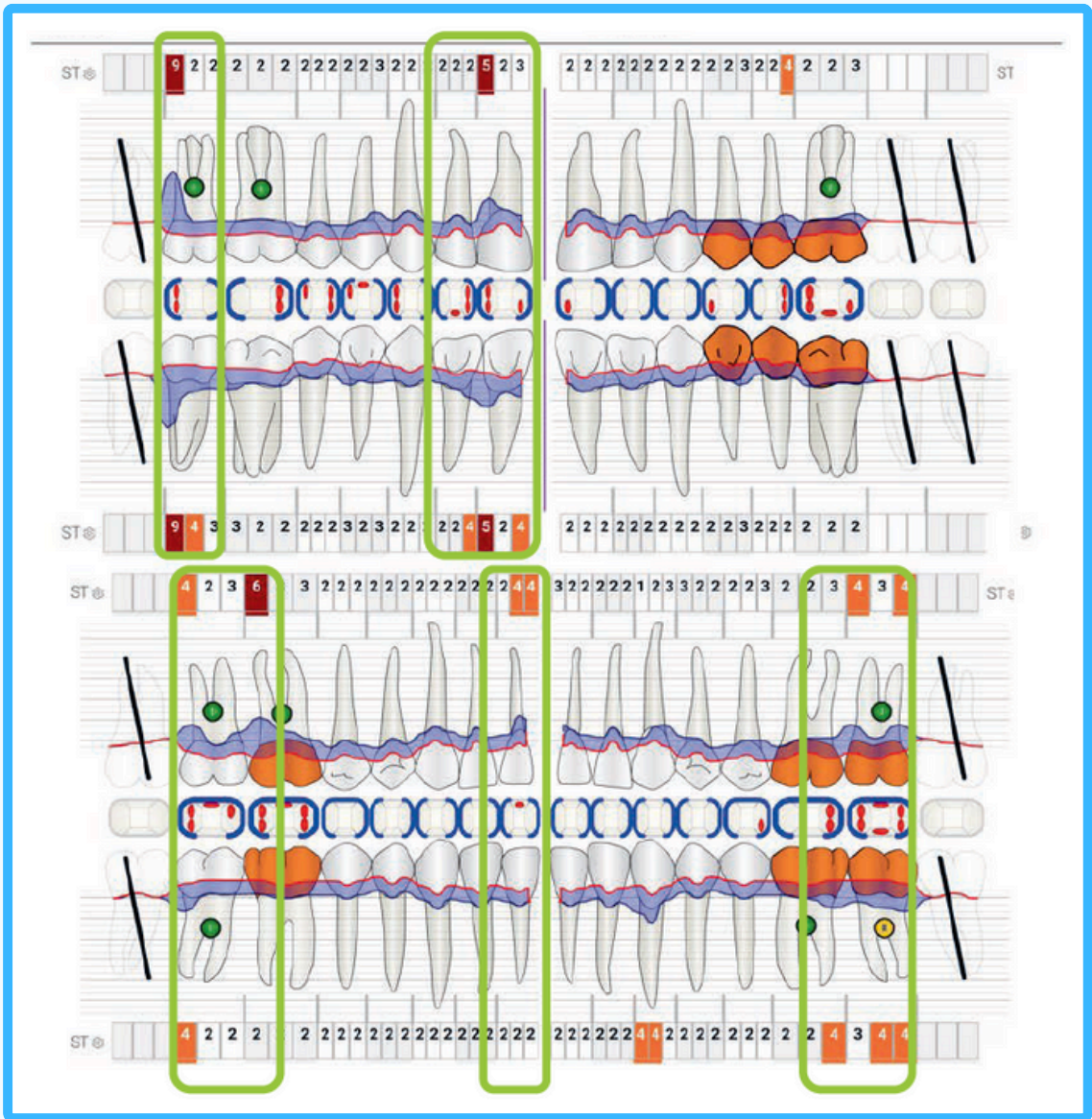
The X-ray findings for this patient reveal vertical bone loss affecting multiple teeth. In line with Stage 2 of the EFP Guidelines for nonsurgical therapy, Pocket-X® Gel was applied as an adjunct to mechanical debridement.

“An initial case series using Pocket-X® Gel has shown significant improvements in probing depths and attachment levels beyond what can be expected from conventional closed therapy. The combination of minimally invasive instrumentation and hyaluronic acid may even shift the current indication boundaries between nonsurgical therapy alone and the inclusion of periodontal surgery.”



Findings and Treatment

As part of the initial therapy (Stage 2), supra- and subgingival mechanical plaque removal were completed, along with the application of Pocket-X® Gel in October 2022.



Follow-Up

Evaluation (March 2023, 5 Months Post-Treatment)



Professional viewpoints from Dr. Nico Menne

Dr. Nico Menne, Dentist,
Practice for Periodontology
and Prophylaxis in Koblenz

My tips for using Pocket-X® Gel:

➤ Storing and applying
Pocket-X® Gel is simple.

With the included thin,
flexible cannula, inject the gel
at the base of the pocket
while slowly withdrawing
the cannula.



The gel, initially in liquid form, solidifies at body temperature, ensuring stability within the pocket.

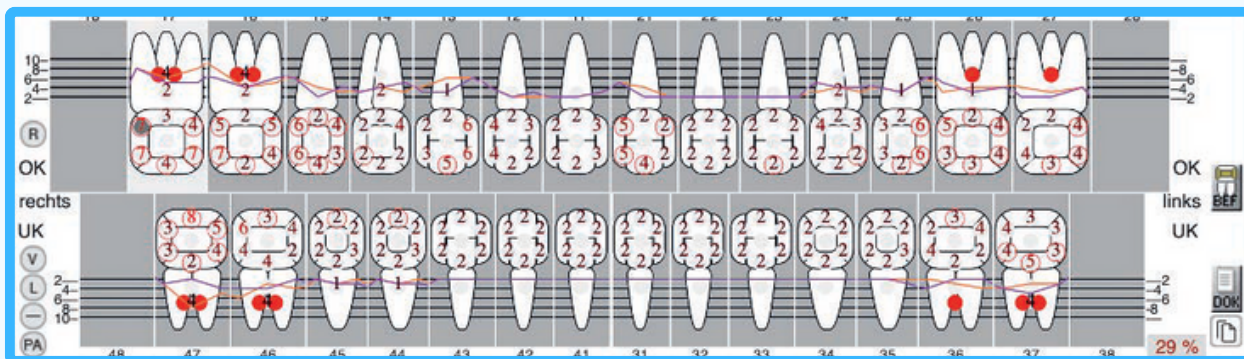
Patient education is crucial; following the IFU, advise gentle brushing for the first two days post-application.



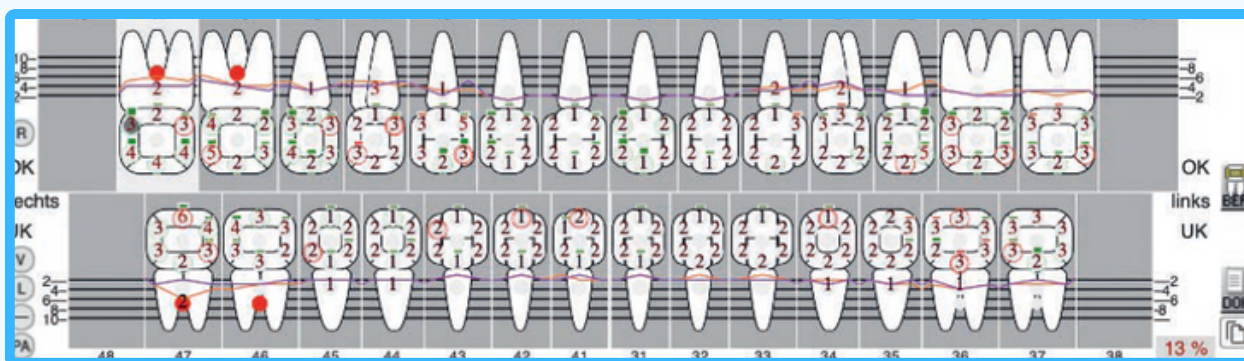
Professional viewpoints from Dr. Nico Menne

Dr. Nico Menne, Dentist,
Practice for Periodontology
and Prophylaxis in Koblenz

Patient Record 1

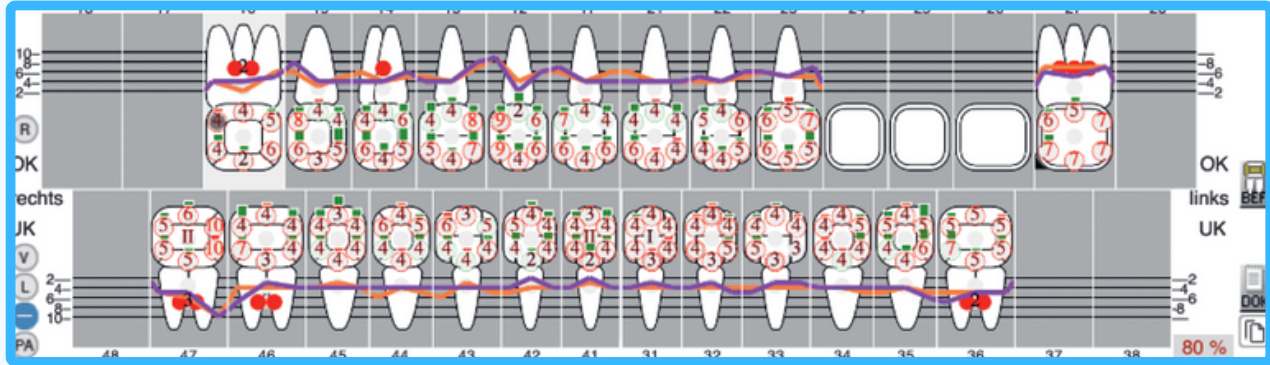


Initial Assessment (End of March 2023) Pocket-X® Gel was applied as an adjunct to subgingival instrumentation.



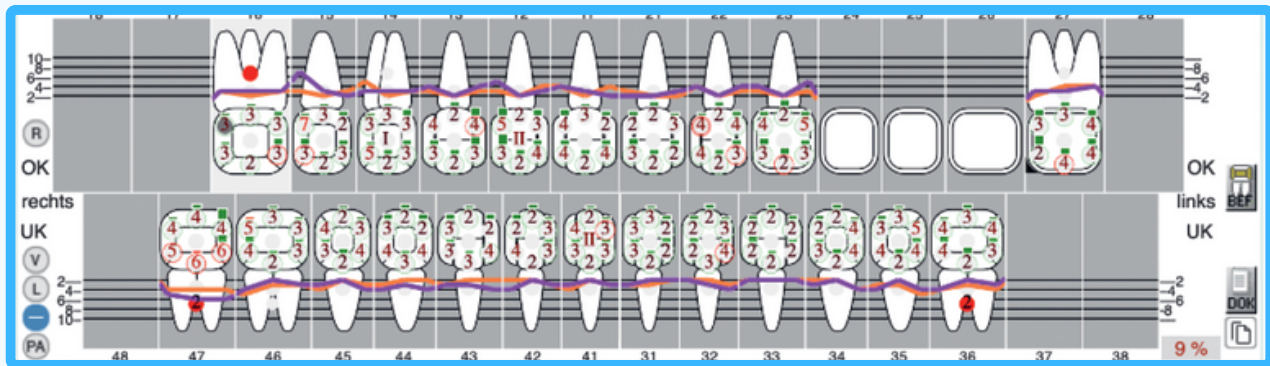
Treatment Evaluation (After 6 Months) A successful reduction in probing pocket depths was observed.

Patient Record 2



Initial Assessment (November 2021)

Pocket-X® Gel was applied as an adjunct to subgingival instrumentation at the end of January.



Treatment Evaluation (3.5 Months Post-Treatment) Bleeding on probing was reduced from 80% to 9%.

“Besides the simple application with the flexible provided cannula during the initial periodontal therapy, I have noticed better results in BOP (Bleeding on Probing) and pocket depths during the treatment evaluation when using Pocket X® Gel. Subjectively, the soft tissue appears firmer as early as the following day, wound healing seems accelerated, and reduced post-operative sensitivities are noted. I look forward to long-term results and further studies.”

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Professional viewpoints from Dr. Florian Rathe

Dr. Florian Rathe, Specialist in Periodontology and Implantology,
Practice Schlee & Rathe Forchheim; Lecturer and Researcher at
DANUBE Private University Krems, Austria

Data from a Retrospective Analysis (Not Yet Published)

Fourteen male and female patients underwent subgingival treatment across four sessions. During the final appointment, Pocket-X® Gel was applied following the instrumentation of pockets measuring 4 mm or deeper. A "Split Mouth" approach was used, with 315 test sites and 466 control sites analyzed.

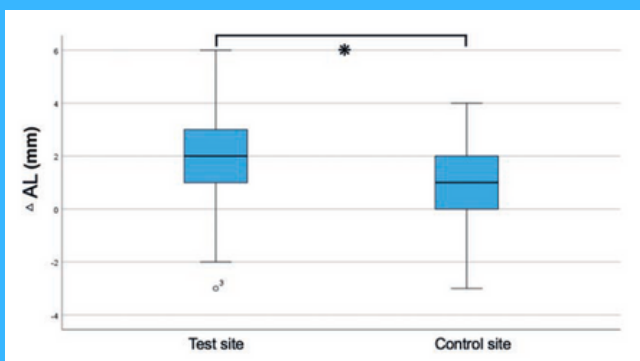


Chart 1

average attachment gain

(* = $p < 0,0001$)

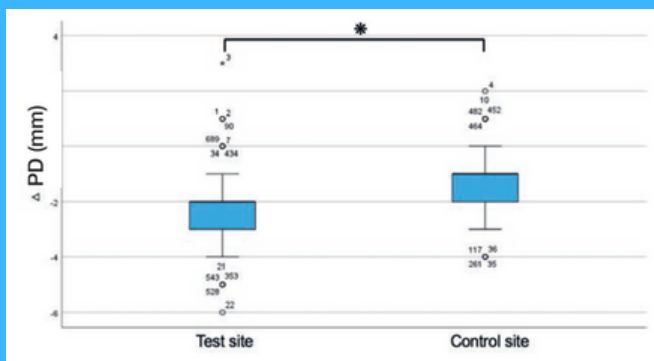


Chart 2

average reduction of pocket depth

(* = $p < 0,0001$)

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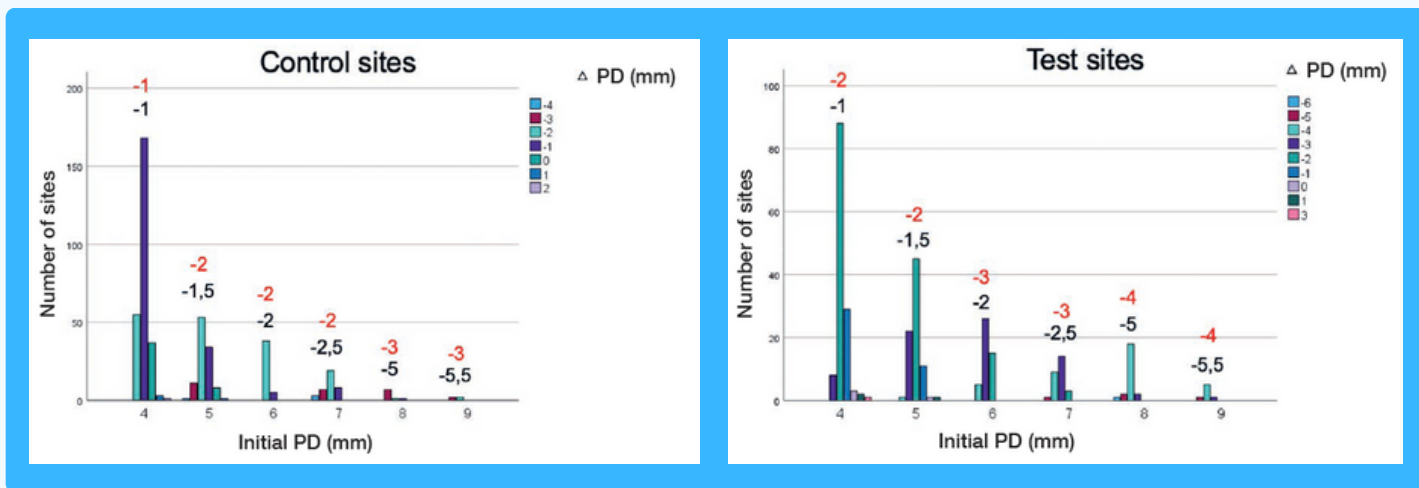


Chart 3

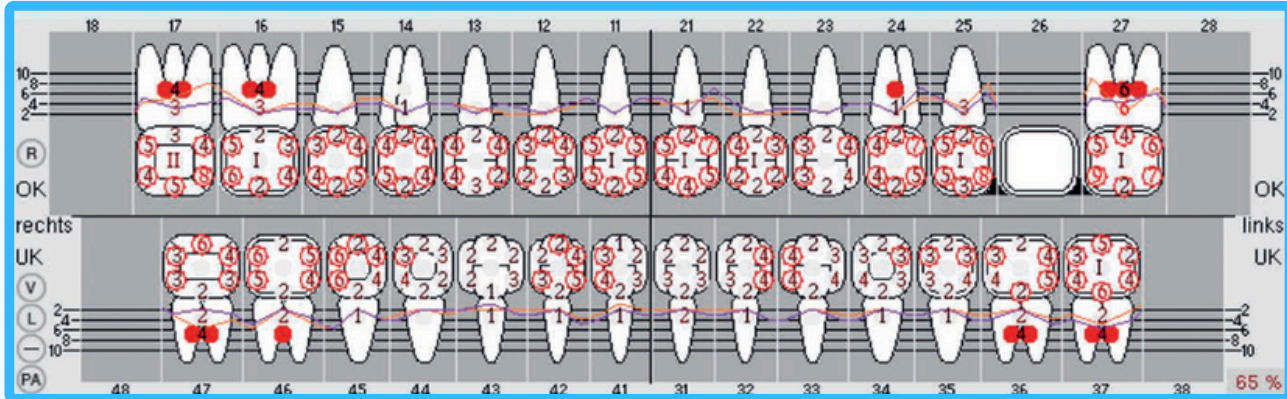
Reduction in probing depth for test and control sites, categorized by initial pocket depth in millimeters. Black = Expected reduction with instrumentation alone (in mm); Red = Actual reduction (in mm).

“I use Pocket-X® Gel in initial periodontitis therapy and supportive care because the combination of subgingival instrumentation and Pocket-X® Gel leads to significantly greater reductions in probing depth (red numbers in Chart 3) compared to the reduction in probing depth that can be expected after subgingival instrumentation alone (black numbers in Chart 3).”

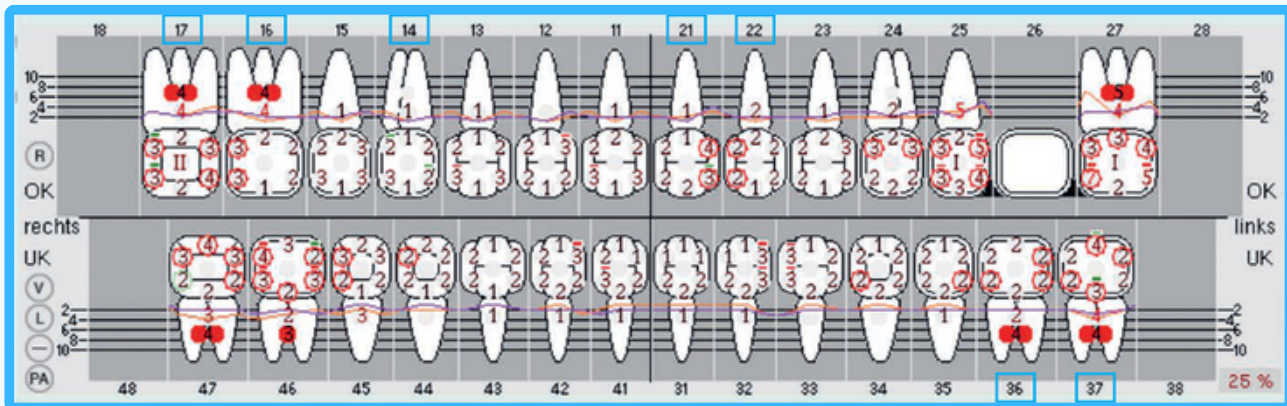


Professional viewpoints from Dr. Florian Rathe

Patient Record 1



Initial assessment from 28.03.2023



Three months after systematic periodontal therapy with a single application of Pocket-X® Gel (as indicated, pockets ≥ 4 mm were treated), significant depth reduction was observed in the periodontal pockets treated with Pocket-X® Gel. The results notably exceeded the expected outcomes of conventional therapy (as shown in the control sites).



Professional viewpoints from Dr. Florian Rathe

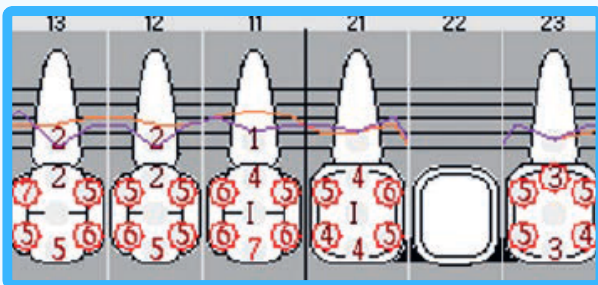
Patient Record 2



Assessment: The bridge from teeth 21 to 23 was broken and could not be replaced due to active periodontitis. Tooth 11 had shifted buccally as a result of pressure from severe palatal inflammation.

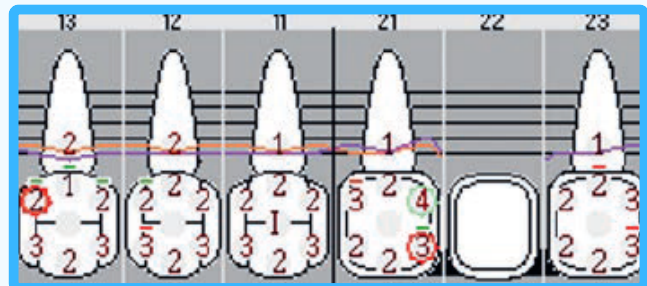


At the time of reevaluation, the inflammation had fully resolved, and tooth 11 had spontaneously retroclined.



Periodontal Chart Before Treatment:

All pockets greater than 4 mm were instrumented subgingivally over four appointments. During the final appointment, Pocket-X® Gel was applied once.




Results after treatment with instrumentation and Pocket-X® Gel.

More information



 **BioMeDent.**

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