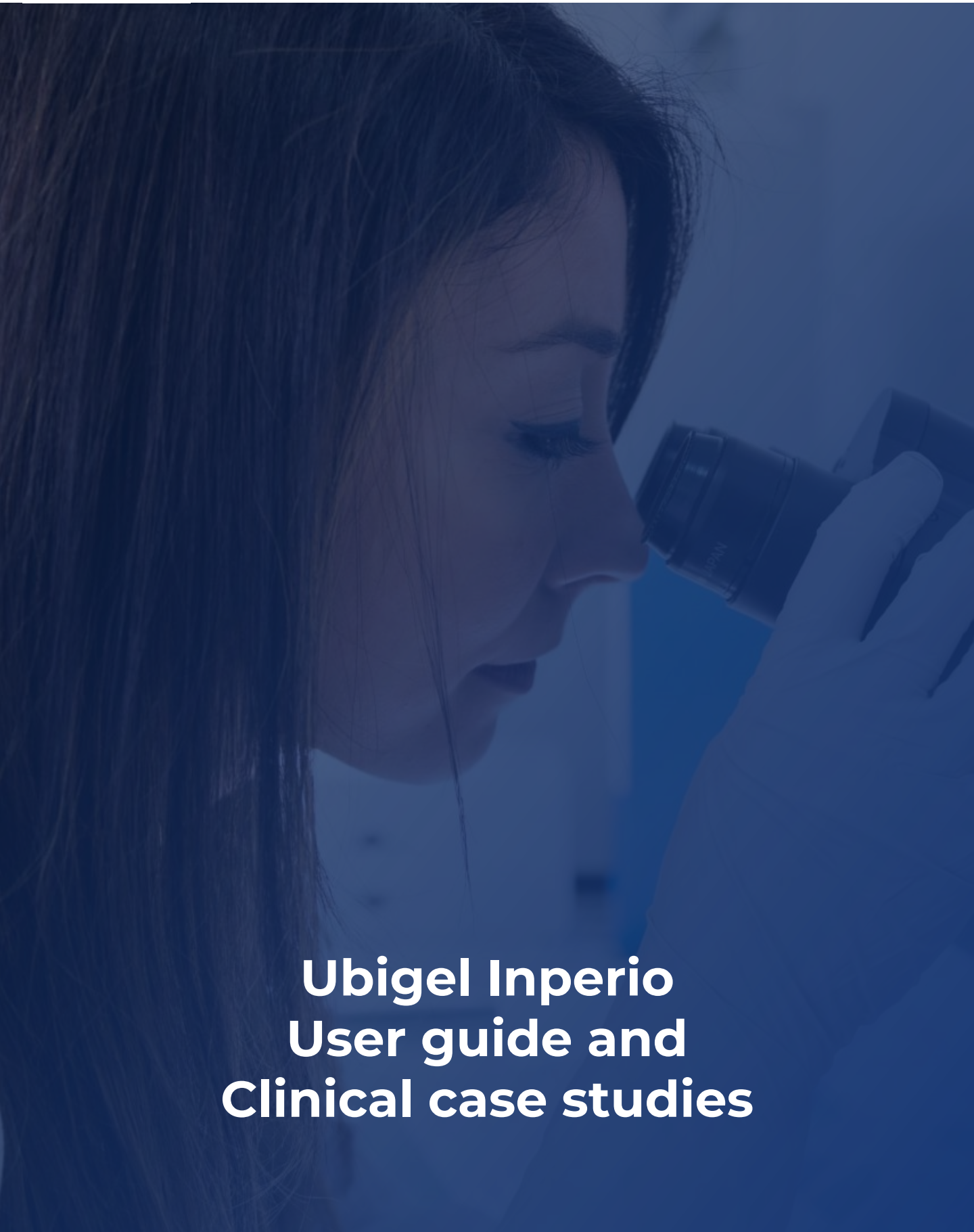
PIERREL

Italian quality and innovation for oral health



Ubigel Inperio User guide and Clinical case studies

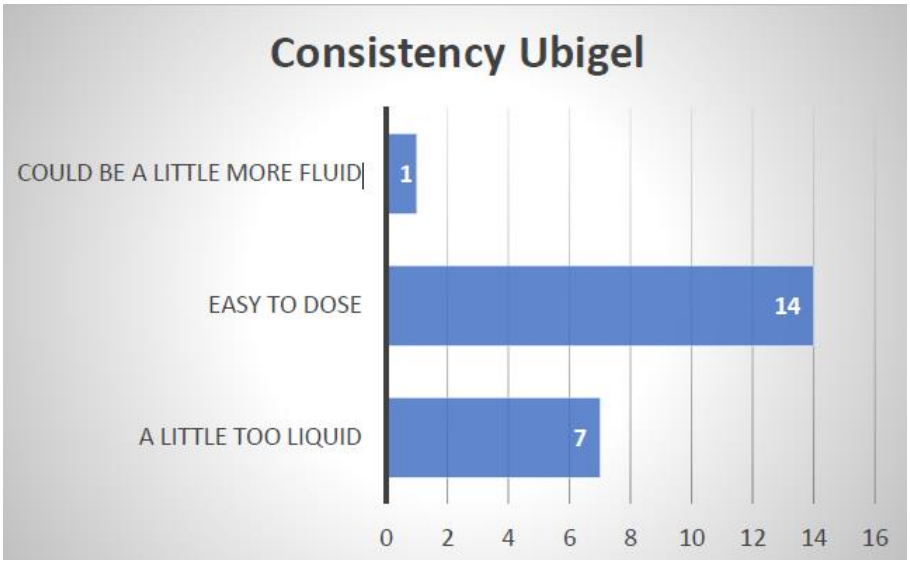
1. How to use Ubigel Inperio:

The product consists of two gels designed for their sequential placement in the pockets periodontal. Both gels have low viscosity and polymerize when applied both. For placement under gingival, the product has a disposable cannula with hole of lateral exit about 2 mm from the tip of the cannula, which has a rounded design. After applying both gels the product assumes, almost instantly, a greater consistency.

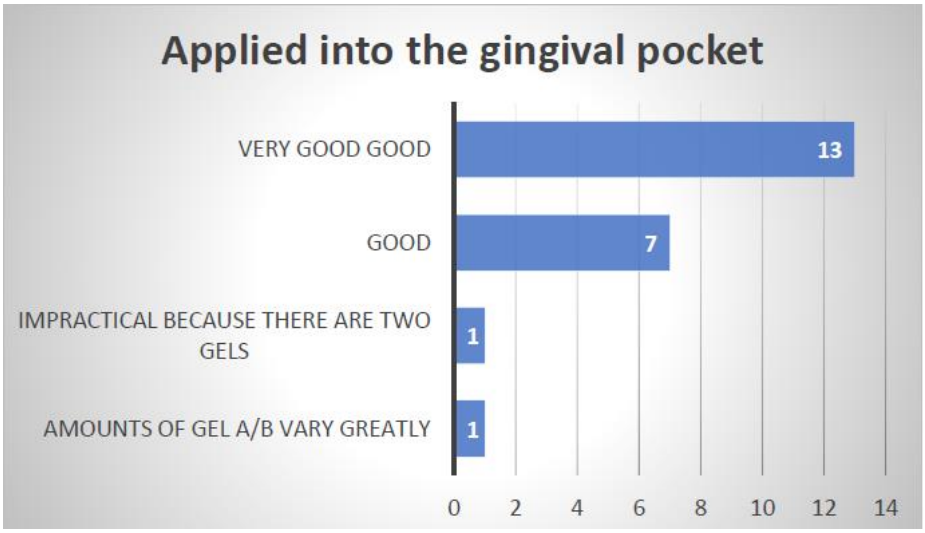
2. User test

An inquy was conducted to evaluate the users experience of Ubigel Inperio. They received 22 responses from 42 test customers. Questions and answers are summarized in the chart below.

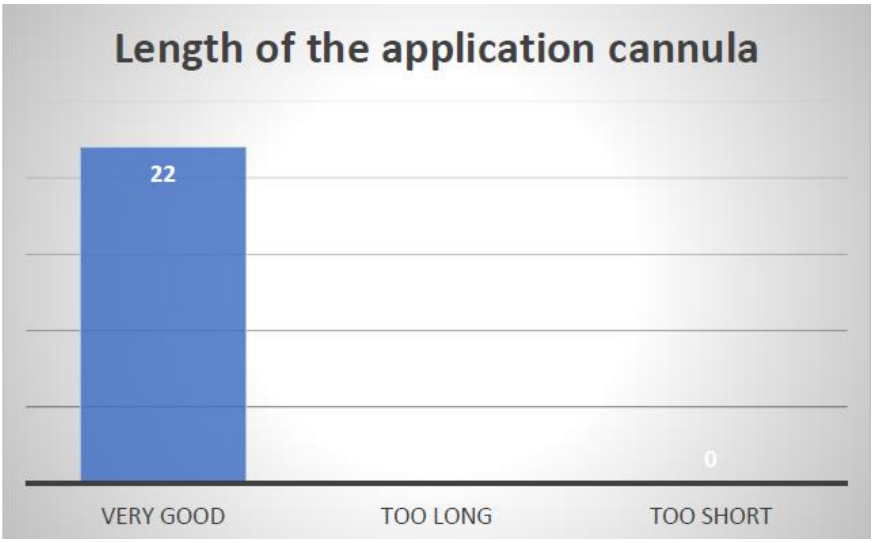
Question 1:
How would you rate the consistency of Ubigel Inperio?



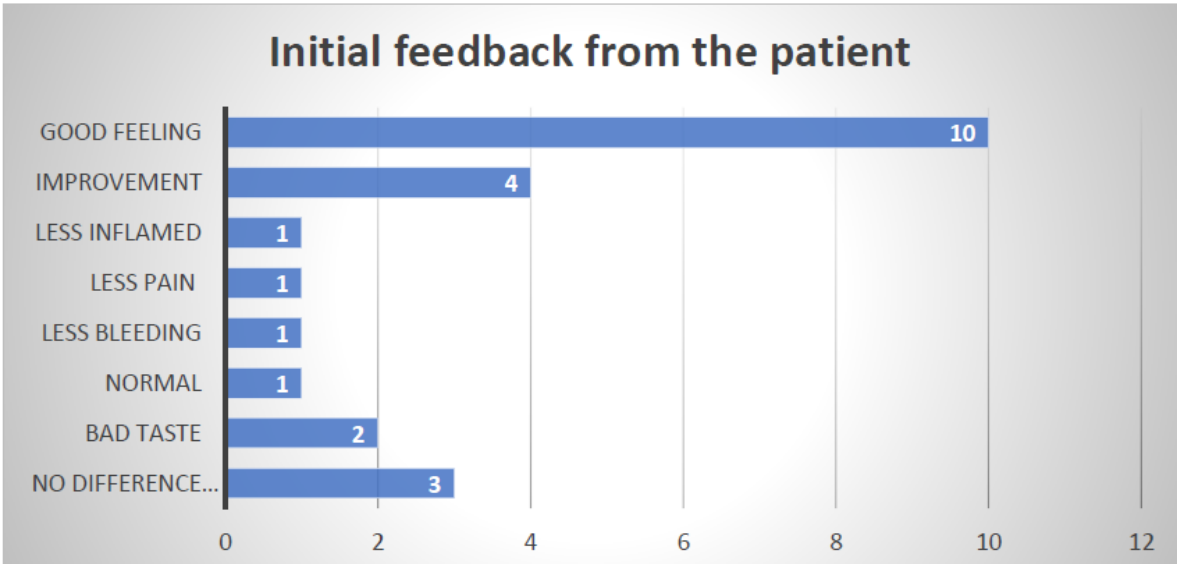
Question 2:
How could Ubigel Inperio be applied into the gingival pocket?



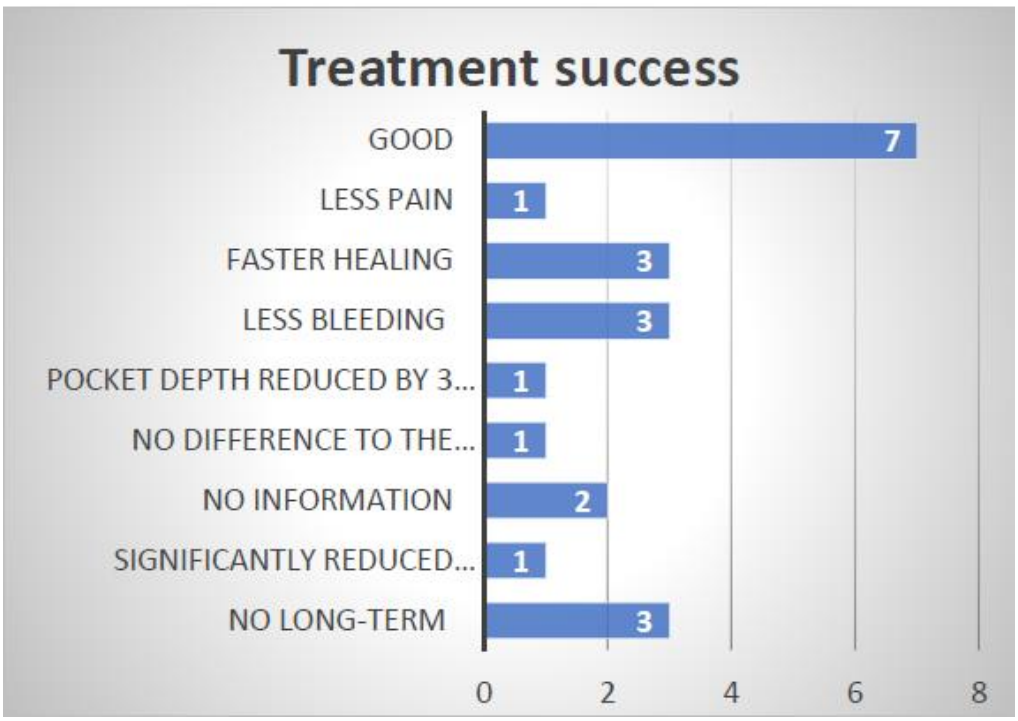
Question 3:
Is the length of the application cannula appropriate?



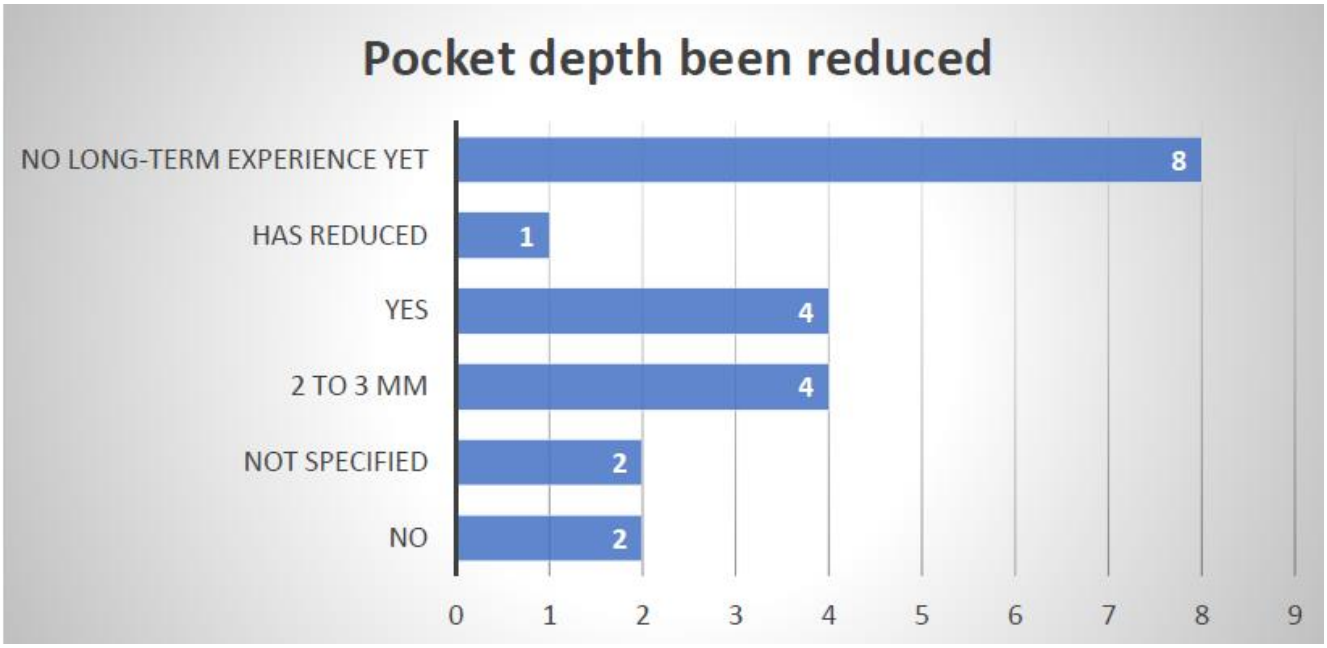
Question 4:
Initial feedback from the patient at the follow-up visit



Question 5:
What positive effect did Ubigel Inperio have in treating the periodontitis?

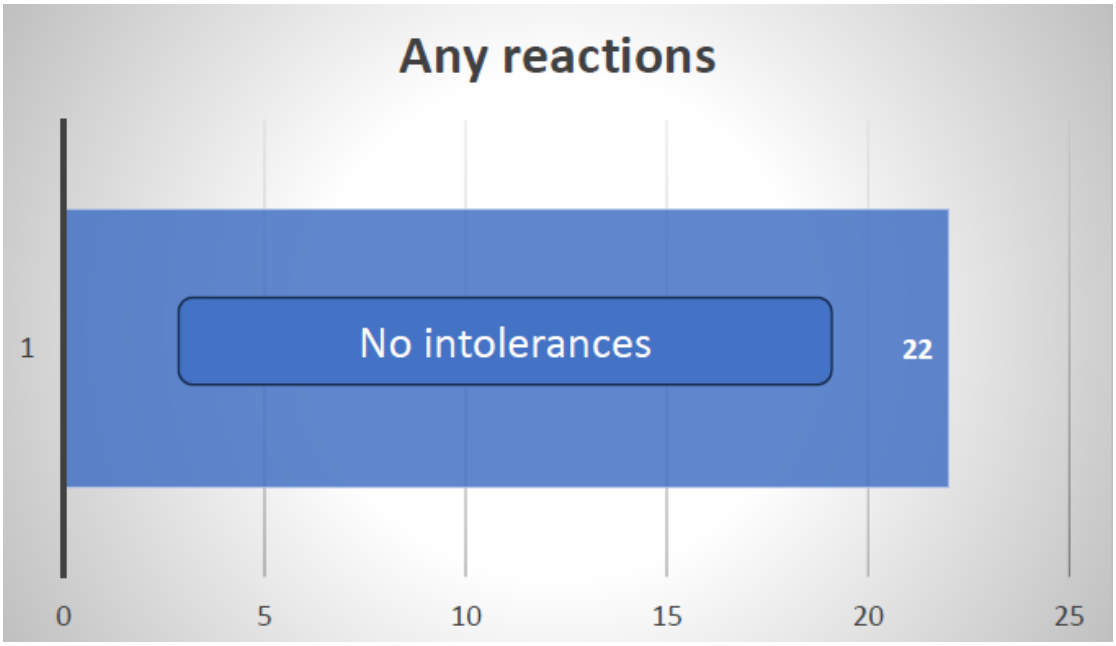


Question 6:
Has the pocket depth been reduced after treatment with Ubigel Inperio reduced?



Question 7:
Did you notice better wound healing after treatment with Ubigel Inperio-shorter healing time?

Question 8:
Did any reactions occur during treatment with Ubigel Inperio e.g. intolerances?



User test evidences:

Ubigel Inperio has been considered a medical device **easy to use** and good to apply in the gingival pocket: the cannula is length enough to ensure an appropriate application and the consistency is good.

After the first application the **patients experienced a good feeling**,

Ubigel Inperio **has a good effect in the treatment of periodontitis**: in some cases the **pocket depth been reduced**, and in almost all patients involved in the test was noted **a better wound healing** after treatment with Ubigel Inperio and/or a shorter healing time.

In all the patients **no adverse reactions** was occurred.

Case studies

Dr. Cristina Nicolau reported 3 clinical case studied on patients with periodontits at the first stages.

Case 1:

39-year-old patient, superficial chronic marginal periodontitis.

Treatment: subgingival scaling, 2 applications of Ubigel at a 2-week interval. Initial photos and after a difference of 1 month.

Before Ubigel

After Ubigel

Case 2:

47-year-old patient, drug-induced hyperplasia Treatment.

Session 1: subgingival scaling and Ubigel applications.

Session 2: Ubigel applications.

Photos at 3 months from the start of treatment

Before Ubigel




After Ubigel




Case 3:

30-year-old patient.

Treatment: subgingival scaling and one application of Ubigel.

Photos after a difference of 1 month

Before Ubigel

After Ubigel

Conclusions:

The clinical situation of patients who benefited from adjunctive Ubigel treatment is visibly improved after just one application. Ubigel is useful in gingivitis or in correlation with periodontal therapy. The sealing gel for periodontal pockets is better applied when the mucosa is dry; otherwise, it is a liquid gel that attaches with difficulty to the free gingival margin.

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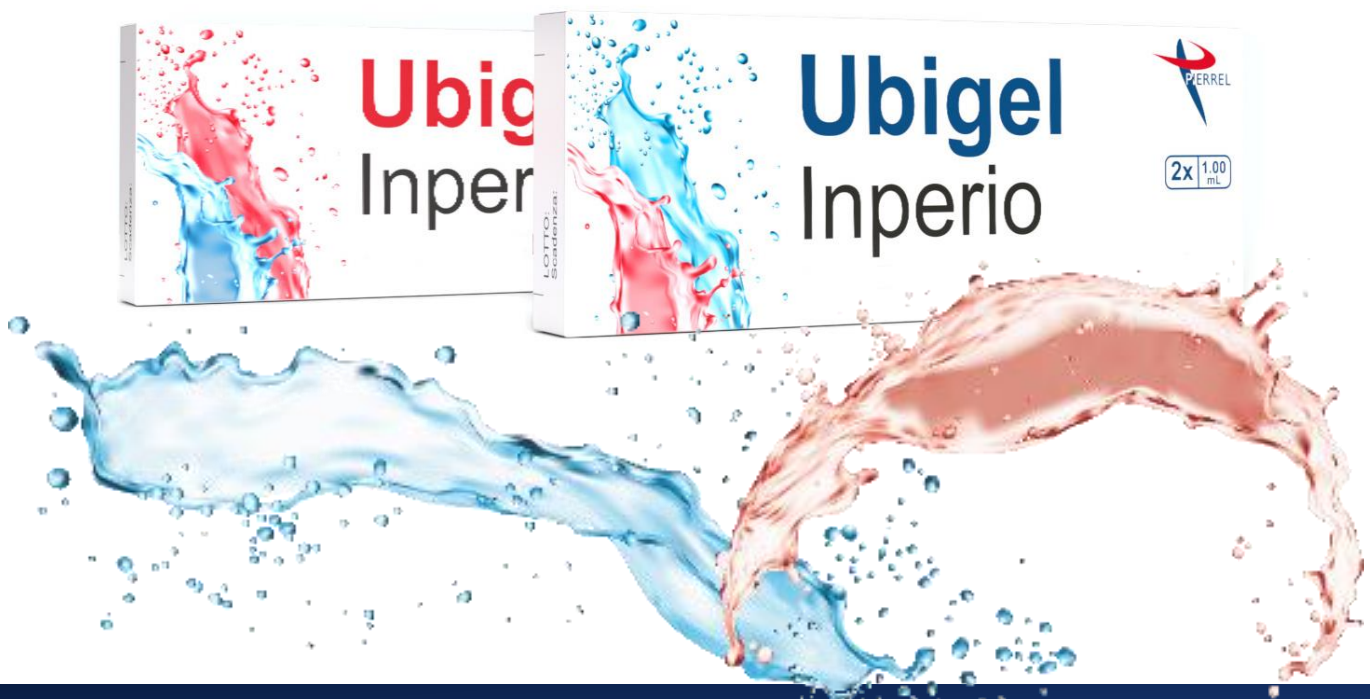

Dr. David Rizzo
dentist, self-employed,
Messina (Italy)

Ubigel Inperio clinical trial:

A clinical trial was conducted by Dr. David Rizzo. A sample of 70 patients was selected equally divided between the two sexes (the female sample was not in the pre or post-menstrual phase), with the following common anamnesis:

- Non smoking
- not in drug therapy
- no systemic disease
- Mediterranean diet
- Complete and natural dental formula
- Normotrophic mucosa
- Normotrophic language
- Gingivitis
- Periodontal probe between 2 and 4 mm
- Plaque index 2-3
- Bleeding at the poll

All patients in the study were given a periodontal chart during the first visit and dental hygiene was then carried out using ultrasound equipment, manual scaling, air flow, Polishing with prophylactic paste and explanation of home oral hygiene manoeuvres.

After 20 days, patients were revisited and their periodontal status was re-evaluated.

Of the 70 initial patients, only 63 were returned to control and of these, 31 still had periodontal probing between 2 and 4 mm, probing bleeding and tenderness. Fourteen men and 14 women were selected to be treated with Ubigel Inperio.

Before the application to patients, a further ultrasound hygiene session was performed, at the end of which Ubigel Inperio was applied. At the end of the treatment, it was prescribed not to drink and eat for at least 1 hour, not to brush for the next 12 hours and not to use dental floss for 15 days, the second application of Ubigel was scheduled for 7 days. At the second appointment, 70% of patients reported an improvement in their gingival status, no bleeding during brushing and no more pain during the same. After the second session, the same precautions as for the first session were prescribed. Patients were therefore assigned a follow-up between 20 and 30 days after the second application of Ubigel Inperio

At the check-up we reassessed the periodontal status, from which it was concluded that, out of 28 patients, 20 had no more periodontal examination and no bleeding, 5 presented pockets of 1 mm in some dental elements and no bleeding, and only 3 had a 2 to 3 mm depth of bleeding.

Picture A:
survey pre treatment 7 days after the professional hygiene is 3 mm with presence of gingival bleeding.

Pictures B and C: Ubigel Inperio treatment

Picture D: survey after 21 days of treatment with Ubigel Inperio: pockes deep is less than 2mm and no bleeding gum.

Conclusions:

We can state that in all patients with gingivitis and therefore with pockets smaller than or equal to 3 mm it produced a partial or total regression of the probing depth, a consequence of the recovery of the epithelial attachment and absence of bleeding, thanks to the "reclamation ” bacterial carried out by Ubigel Inperio, inside the gum pocket. The patients interviewed a week after the first application reported having noticed an improvement in their gum conditions, less bleeding, less pain when brushing and less redness, starting from the following days, while usually with professional hygiene alone the recovery times they are longer.

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Clinical Case Study

Conservative management of inflammatory drugs: treatment combined with photodynamic therapy and periodontal gel

A 62-year-old male patient presented with significant bleeding during at-home oral hygiene in the upper left maxillary region. His medical history included arterial hypertension. Clinical examination revealed a red, exophytic lesion on the palatal side of the interdental papilla between teeth 26 and 27, along with generalized gingival inflammation due to poor oral hygiene.

A provisional diagnosis of pyogenic granuloma or inflammatory epulis was made, and an excisional biopsy was scheduled. After administering local anesthesia with mepivacaine and epinephrine (1:100,000), the lesion was conservatively removed and sent for histological examination. Ten days later, the diagnosis confirmed an inflammatory epulis with highly vascularized tissue and no cellular atypia.

Post-excision, the site was treated with photodynamic therapy using a 1% methylene blue derivative and a 660 nm diode laser (Helbo System) to decontaminate the remaining gingival tissue. One week later, while inflammation had resolved, a loss of interdental papilla tissue was observed, resulting in both aesthetic and functional concerns.

To address this, a dual-component periodontal gel containing spermidine and hyaluronic acid (Ubigel Inperio) was generously applied to the affected and adjacent gingival papillae. After one month—without tartar removal or additional at-home treatments—a tissue regeneration of approximately 2 mm was observed in the interdental area.

Fig. 1: exophytic sessile erythematous lesion in the papilla interdental between 26 and 27

Fig. 2: Healing of gingival tissues after removal of the inflammatory epulide (note the presence of tissue erythematous distal to 26)

Fig. 3: Application of the photosensitizer based 1% methylene blue derivative, left to act 3 minutes before the lighting

Fig. 4: Activation of the photosensitizer with diode light 660 nm, 100 mwatt for 5 minutes

Fig. 5: disappearance of the erythematous area but presence of inversion of the periodontal gingival architecture

Fig. 6: application of periodontal gel based on spermidine and hyaluronic acid (Ubigel Inperio, Pierrel)

Fig. 7: Regeneration of gingival tissue in the interdental papilla at one month follow-up

Conclusion:

This case suggests that such gels may play a valuable role not only in periodontal regeneration, but also in the restoration of gingival tissue following biopsies for oral diseases. However, further studies with larger patient samples are needed to validate these promising preliminary results.

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Surgeon specialising in
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Ubigel Inperio clinical cases

Case 1:

Patient: 56-year-old woman

Treatment: Inflammation with exudate and 5 mm pocket.

Treated with Ubigel: Infiltration protocol twice a week for 30 days

Before treatment with Ubigel Inperio

After treatment with Ubigel Inperio

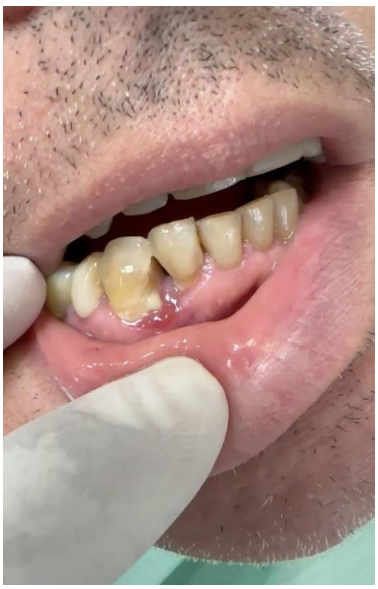
Case 2:

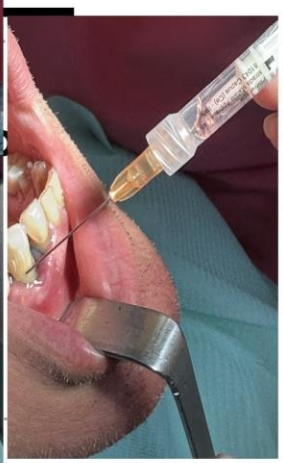
Patient: 59-year-old male

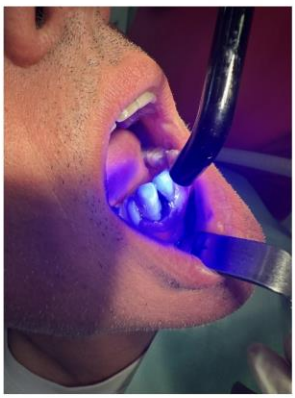
Treatment: Periodontal inflammation with 6 mm pocket exudate.

After cleaning with ultrasound, Ubigel was applied twice every 7 days for a month.

Before treatment with Ubigel Inperio







During treatment

After treatment with Ubigel Inperio:
pocket reduced to 2 millimetres.

Case 3:

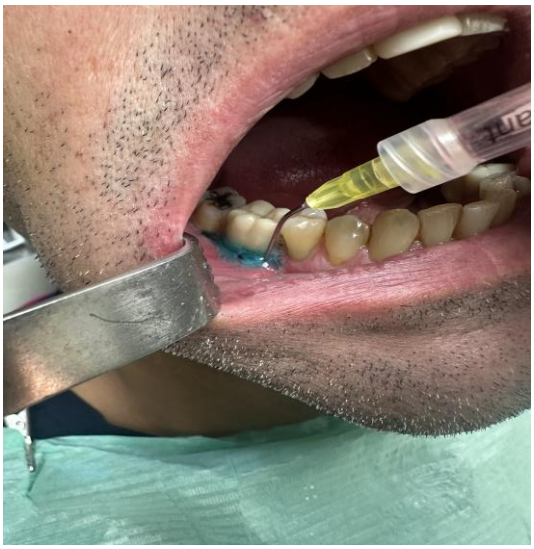
Patient: male

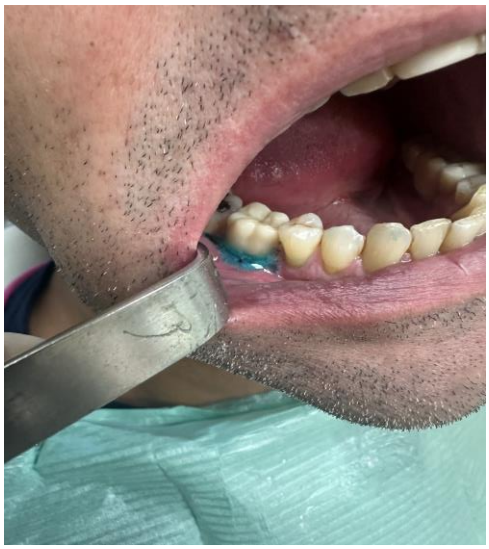
Treatment: Widespread periodontal disease with bleeding gums.

Three applications in the first week, two applications in the second week. The problem was resolved within 20 days.

By the fifteenth day, there was no bleeding or pain.

Before treatment with Ubigel Inperio





After treatment with Ubigel Inperio

Conclusion:

Analysis of the clinical cases presented shows that the use of **Ubigel Inperio**, as part of a correct clinical protocol, provides valuable **support in the treatment of inflammatory periodontal diseases**. In all treated patients, **a significant reduction in gingival inflammation,** exudate and probing depth was observed, with a marked **improvement** in clinical conditions and reported symptoms, such as **pain and bleeding**.

The product proves to be effective in both localised and widespread cases, promoting a rapid tissue response and stabilisation of results in the short term. Combining it with conventional periodontal procedures optimises healing times and improves patient comfort.

In light of these results, Ubigel Imperio can be considered a useful complementary aid in the management of periodontal inflammation, contributing significantly to therapeutic success and improving the patient's oral health.

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Clinical case

How to promote the effectiveness of aetiological therapy associated with the application of a biomaterial.

A 61-year-old female patient was referred for periodontal evaluation following the discovery of a deep periodontal pocket in the right maxillary molar. Clinical examination revealed pathological probing values on the right first maxillary molar, with probing depths of up to 8 mm, clinical attachment loss of up to 11 mm and bleeding on probing.

In accordance with clinical guidelines, non-surgical aetiological therapy was initially performed in two closely spaced sessions, including complete periodontal instrumentation of the oral cavity using manual and ultrasonic instruments. At the end of decontamination, sites with pathological probing values were treated locally with a two-component periodontal gel containing spermidine, alginate and sodium hyaluronate (Ubigel Inperio®, Pierrel), applied according to the subgingival protocol.

At the two-month clinical re-evaluation, a significant improvement in periodontal parameters was observed, with a reduction in probing depth of up to 2–3 mm, no bleeding on probing and a reduction in clinical attachment loss values. The patient also reported complete resolution of the pain symptoms previously present.

The clinical results obtained made it possible to postpone any surgical treatment, instead scheduling a periodontal support therapy protocol with periodic check-ups and clinical re-evaluation by means of circumferential probing.

Figure 1a-b. Comparative clinical images before (a) and 2 months after (b) non-surgical periodontal treatment, combined with the use of a product consisting of two gels applied sequentially to the periodontal sites, as shown in the video linked to the QR Code. The baseline clinical image shows a probing depth of 5 mm (PD), associated with BoP+ bleeding (a) and a clinical attachment loss (CAL) of 8 mm. In the video, taken one week after the image in figure a, a probing depth of 6 mm is noted, still associated with BoP+ bleeding. The PD values have been reduced from 5 mm (a) to 3 mm (b), with no BoP- bleeding (b), and those relating to CAL from 8 mm (a) to 5 mm (b), in the mesio-buccal area.

Figure 2a-b. Comparative clinical images before (a) and 2 months after (b) non-surgical periodontal treatment, combined with the clinical application of a two-component gel (Ubigel Inperio). PD values were reduced from 8 mm (a) to 2 mm (b), with no BoP bleeding (b), and CAL values were reduced from 11 mm (a) to 7 mm (b) in the mesio-palatal area.

Figure 3: It is particularly crucial to reinforce the patient's motivation at each appointment in the protocol, checking the accessibility of the spaces for the interdental brush and, above all, assessing the effectiveness of the oral hygiene manoeuvres performed by the patient undergoing treatment.

Figure 4a-d: In the next appointment of the protocol, the modus operandi is always the same: non-surgical periodontal instrumentation, using both manual instruments and ultrasounds (a), followed by a second application of the product (Ubigel Inperio®, Pierrel) (b-d), which in the meantime had been kept in the refrigerator to enhance its biological effects.

CONCLUSIONS:

The clinical case presented illustrates the use of a biomaterial (Ubigel Inperio, Pierrel) as a support for non-surgical aetiological therapy in a patient with localised periodontitis, highlighting the benefits of an integrated approach based on correct diagnosis, appropriate instrumentation, targeted use of biomaterial and constant re-motivation of the patient by the entire dental team.

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