

OXYSAFE® – Successful periodontitis and peri-implantitis therapy in connection with general diseases such as Diabetes mellitus

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Birgit Thiele-Scheipers (ZMP)

- 1986 – 1989 Training as a dental assistant
- Since 1989 Permanent employment in dental practices in East Westphalia, Germany
- 1993 Lecturer training at the Zahnärztekammer Westfalen Lippe (Westphalia Lippe Dental Association), Germany. Focus on prophylaxis
- Since 1994 Freelance speaker at the Zahnärztekammer Westfalen Lippe (Westphalia Lippe Dental Association), Germany
- 1996 – 1997 Advanced training to become a dental prophylaxis assistant
- Since 2006 Freelance practice trainer



Fig. 1: OXYSAFE Professional for UPT (Hager & Werken, Duisburg, Germany)

Complement of standardized treatment processes through the use of innovative active oxygen technology.

Exciting, innovative developments in the field of therapeutic treatment enable us to offer alternative treatment therapies without side effects to patients suffering from periodontitis and / or peri-implantitis.

Many patients often react with undesirable and often stressful side effects such as diarrhoea or nausea when taking antibiotics for example. At the same time, their gut flora is stressed above average, which can lead to significant changes in the bacterial genome. Patients then stop taking them on their own initiative, so that resistance can develop. A therapy with chlorhexidine can lead to discolouration of the teeth and tongue. Further side effects can include burning mucous membrane and tongue and the sensation of a metallic taste. It is particularly patients who have already been treated with these methods, and who have experienced the above mentioned side effects, who should be informed about active oxygen technology. The same holds true for patients who refuse antibiotics or a chlorhexidine treatment right from the start. As specialists, we should always be “up to date” and look for alternatives that are neither additionally stressful for our patients nor limit their quality of life through side effects. Having the courage to try out new and different treatments and to communicate them is part of our practice philosophy of individualised patient-focused dental hygiene. Good cooperation and patient information strengthen the patients’ trust in the therapy recommended by the practice. A good and fast healing process motivates both the practitioner and the patient. Prophylaxis practices that work with individual, innovative and professional approaches should educate and inform their patients about the possibility of an active oxygen therapy with OXYSAFE Professional in connection with periodontitis and / or peri-implantitis. Patients with general diseases such as Diabetes mellitus, in which impaired wound healing can hinder the treatment process, benefit from the application and subsequent rinsing at home with OXYSAFE Professional Liquid – free of side effects. As a result, we receive many positive recommendations from among our patients. I have been working with OXYSAFE Professional for several years and appreciate the simple, painless and efficient application of the gel. A good treatment process usually also leads to improvements in general health and a better quality of life for the patient.

Area of application OXYSAFE Professional: Periodontal treatments, SPT (supportive periodontal therapy) and peri-implant therapy

Following successfully completed PA treatment in SPT and in the area of peri-implantitis prophylaxis, we advise patients to have a follow-up treatment with OXYSAFE. We apply OXYSAFE to gingiva pockets with probing depths of 5 mm and more, particularly in patients with Diabetes mellitus, who often have impaired wound healing. Without using any pressure, the gel is applied to the gingival pocket with an applicator. Reduced salivation is a possible side effect of Diabetes medication and can raise the risk of an increased formation of anaerobic bacteria, which negatively influence the course of periodontitis and peri-implantitis. This in turn increases the risk of impaired wound healing. The active oxygen technology supports a rapid healing process without any side effects. Following the treatment in our practice, our patients receive a bottle of OXYSAFE Professional Liquid to be used in aftercare at home to allow the positive ef-

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fect to continue. The patient in the photos (Fig. 2) came to our practice for the first time. When taking his medical history, the 67-year-old patient stated that he had been suffering from type 2 Diabetes for several years. The patient complained about constantly recurring swelling of the gums, combined with bleeding when brushing his teeth. For years, regular check-up examinations carried out by his GP have shown great difficulties in setting the Hb1Ac value. Periodontal therapies with prior or subsequent antibiosis and chlorhexidine rinsing had already been carried out. The X-ray of the periodontal index showed grade 4 in all sextants with active probing depths of 5 to 8 mm. The side effects of previous antibiosis and the fact that acute symptoms such as bleeding did not subside represented a major reduction in the quality of life for the patient. In interdisciplinary cooperation schemes with the patient's family doctor, we defined the current Hb1Ac value, which turned out to be as high as 8.5. This clearly indicated poorly regulated Diabetes. Our goal was to bring the patient to a lower Hb1Ac value between 6.5 and 7.5 through immediately initiated therapeutic treatment measures, including OXYSAFE Professional.

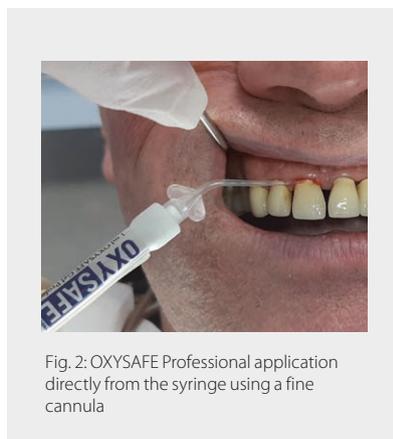


Fig. 2: OXYSAFE Professional application directly from the syringe using a fine cannula

The connection between periodontitis and Diabetes mellitus

Back then the periodontitis and peri-implantitis disease made it impossible to properly regulate the Diabetes mellitus, and the increased Hb1Ac value did not promise good healing results. It has been proven that there is a connection and interaction of periodontal disease with general diseases such as Diabetes mellitus. We therefore told the patient that a new systematic periodontal treatment with subsequent use and application of OXYSAFE should be initiated immediately. Following the periodontal therapy with mechanical cleaning and polishing, the OXYSAFE Gel was applied directly into the gingival pockets, where it was left for five minutes before being rinsed with a saline solution. The gel was then applied a second time, this time remaining in the gingival pockets (Fig. 3). For use at home, the patient was given a bottle of OXYSAFE Professional Liquid mouthwash and was asked to use it undiluted two to three times a day.

Just two weeks later, the first periodontal follow-up showed a distinct improvement over the initial situation (Fig. 4). The patient noticed a decrease in swelling and bleeding. In the second PFC (periodontal follow-up care), four weeks after the application of OXYSAFE, the gingiva was already light pink and tightly attached. Thanks to the impressive results, the patient was motivated to have regular follow-up examinations and to fully cooperate at home. In the first year following the treatment, the patient had further SPT-appointments with us at regular three-month intervals. From the second year on, the RE (Re-evaluation examination) has been extended to five months. The periodontal and general medical situation has increasingly stabilised, the Hb1Ac value now being 7. It has not been necessary to use OXYSAFE again. Should the symptoms recur, a further use of OXYSAFE

Advantages of OXYSAFE Professional

- Less time required
- Easy to apply
- Great acceptance by patients
- Pleasant taste
- No burning sensation on the mucous membrane or tongue
- No discolouration on mucous membrane and teeth
- No gastrointestinal discomfort
- Similar successes with non-smokers and smokers
- Value for money



Fig. 3: The mucoadhesive gel sticks slightly in the defect and unfolds its effect after contact with water or saliva

Fig. 4: Already clearly changed image of the soft tissue only two weeks after treatment

The way OXYSAFE Professional works

OXYSAFE contains the patented Ardox-X technology, based on active oxygen (hydrocarbon-oxoborate complex), which becomes activated by contact with the skin or mucous membrane in combination with water or saliva. This complex acts as a matrix which releases the active oxygen into the area to be treated. This immediately reduces the number of Gram-negative bacteria. Furthermore, the oxygen-enriched microenvironment has a proven positive effect on the treatment of inflamed gingival pockets. Substances harmful to the body, such as hydrogen peroxides and radicals are not included. The application of OXYSAFE Gel Professional supports the periodontal regeneration therapy of soft tissue that has been damaged by the tooth supporting apparatus. Thanks to its increased oxygen content, it also has an antibacterial and fungicidal effect, which in turn has a positive effect on the regeneration of inflamed tissue. Oxygen protects the oral flora without attacking mucosal cells or osteoblasts.

Efficacy proven by studies and universities

Neither mucosal cells nor osteoblasts are attacked. The effectiveness of OXYSAFE Professional has been proven by independent universities and many studies.

What distinguishes OXYSAFE Professional from other products?

- Antibiotics and CHX preparations have physical limits when it comes to penetrating the biofilm. Their molecules are too big to pass through the biofilm and its bacteria.
- OXYSAFE Products with their active oxygen technology, can oxidize the proteins in the biofilm, which is why they achieve better permeability deep into the gingival pocket.
- No resistance build-up
- Nearly identical treatment successes among smokers and non-smokers
- Increases cell metabolism and energy production
- Increases collagen synthesis and tensile strength
- Increases antibacterial activity
- Increases angiogenesis and promotes revascularisation
- Promotes growth factor signals



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Scientific studies prove the success of OXYSAFE Professional

- In clinical use for over 20 years
- A reduction of the pocket depth by up to 56 % could be determined within 3 months after treatment
- In 75 % of all peri-implantitis patients a clear healing effect and in some cases even re-osseointegrations were found
- The main causes for periodontitis and peri-implantitis, bacteria such as Tannerella forsythia, Fusobacterium nucleatum, Campylobacter rectus, and Capnocytophaga were distinctly reduced

What is the difference between OXYSAFE Professional Gel and Liquid?

- OXYSAFE Professional Gel is applied directly into the gingival pockets by the dental or prophylaxis specialist using a 1 ml syringe and applicator
- OXYSAFE Professional Liquid is a mouthwash. For an optimal follow-up care, it is used by the patient at home following the treatment. It ensures that enough active oxygen remains in the mouth to maintain an antibacterial effect and to support the desired wound healing.

Long-term effect - without antibiotics and CHX

OXYSAFE Professional with its patented oxygen technology (hydrocarbon-oxorobate complex) works from the outside inwards and quickly penetrates the biofilm in the gingival pockets. The oxygen complex oxidises the nutrients of the anaerobic bacteria so that they can no longer use them. In addition, a regenerating effect is activated in the inflamed tissue.

Protection of the oral flora

OXYSAFE does not use peroxides or radicals that could negatively affect the oral flora. In combination with the liquid enough active oxygen is released into the gingival pockets in the long term, avoiding the reinfection risk. We not only observe a rapid decrease in bleeding and inflammation, but also a rapid recovery of the soft tissue and an accelerated healing process. We are, therefore, enthusiastic and happy to publish our results.



OXYSAFE Intro Kit, 3 x 1 ml Gel REF 155 040
3 x 250 ml liquid + 3 x application canulas

OXYSAFE Gel, 1, 3 syringes à 1 ml REF 155 041
OXYSAFE Liquid, 250 ml REF 155 042

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