TOPICAL DESICCANT AGENT IN ASSOCIATION WITH MANUAL DEBRIDEMENT IN THE INITIAL TREATMENT OF PERI-IMPLANT MUCOSITIS: A CLINICAL PROSPECTIVE STUDY

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Background & Aim
Limited data exist regarding the treatment of peri-implant mucositis and current treatment protocols for this condition are still unpredictable [1]. The aim of this randomized study was to evaluate the clinical effects of the adjunctive administration of a locally delivered desiccant liquid with molecular hygroscopic properties (HYBENX® Oral Tissue decontaminantTM, HBX) in association with manual scaling and root planning (SRP) in the treatment of peri-implant mucositis.

Methods
12 patients presenting at least one implant with a probing depth (PPD) ≥4 mm combined with bleeding and/or exudate on probing, were included in the study. At baseline (T0) subjects were randomly assigned to: the Test group SRP+HBX (6 subjects and 16 implants), which received local administration of HBX before SRP; or to the Control group SRP+CHX (6 subjects and 14 implants), which received Chlorhexidine Digluconate Corsodyl TM Dental Gel 1% (CHX) after debridement. Treatment was repeated after 2 and 4 weeks (T1 and T2). Follow-up examinations were conducted at 3 months (T3). Visible plaque index (VPI), modified plaque index (mPLI), bleeding on probing (BOP), modified bleeding index (mBI) and peri-implant probing depths (PPD) were clinically detected to estimate soft tissues conditions. mBI reduction was the main outcome.

Results
Between T0 and T3 examinations, both groups presented a statistically significant reduction in m-BI: 1.63±1.02 for the Test group; 1.29±1.20 for the Control group. Furthermore, the SRP+HBX group showed a significantly (p<0.05) greater PPD reduction (concerning the deepest PPD site), compared to SRP+CHX group. Despite an increased percentage of sites showing a complete disease resolution (9/16 sites BOP+, 56%, in the Test group; 6/14 sites BOP+, 43% in the Control group), comparisons failed to demonstrate statistically significant differences among groups. Better performances in microbiological analysis were revealed by SRP+CHX group, which exhibited a validated and targeted effect on anaerobic bacteria.

Discussion and Conclusion
Similarly to other studies concerning different agents [2,3], both groups were effective in reducing inflammatory signs on the short term, but failed to achieve a complete disease resolution. Greater results were found in T-HBX group, with a statistically significant difference in PPD. On the contrary, T-CHX group revealed superior microbiological outcomes, especially among anaerobic bacteria.

References

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