

The effect of orally administered probiotic *Lactobacillus reuteri*-containing tablets in peri-implant mucositis: a double-blind randomized controlled trial

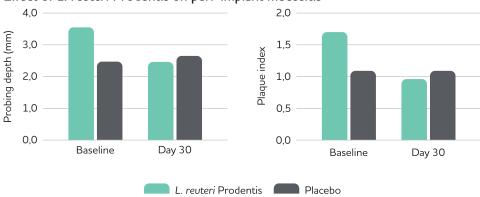
Flichy-Fernández AJ, Ata-Ali J, Alegre-Domingo T, Candel-Martí E, Ata-Ali F, Palacio JR, Peñarrocha-Diago M. J Periodontal Res. 2015;50:775-785.

Demonstrates that L. reuteri Prodentis improved clinical and inflammatory parameters of peri-implant mucositis

Results

- The decrease in plaque index, probing depth, modified gingival index and peri-implant crevicular fluid volume was significantly greater with *L. reuteri* Prodentis than placebo, both in the group with healthy implants (group A) and the group with peri-implant mucositis (group B). The effects were, however, more pronounced in group B
- The pro-inflammatory immune parameters IL-1 β , IL-6 and IL-8 all improved after *L. reuteri* Prodentis supplementation, and to a greater extent in group B

Effect of L. reuteri Prodentis on peri-implant mucositis



Conclusion

• L. reuteri Prodentis improved clinical parameters and reduced cytokine levels in patients with peri-implant mucositis as well as in patients with implants without peri-implant disease

Facts

- Study design: randomized, double blind, placebo-controlled, crossover clinical trial
- Subjects: 34 patients divided in two groups: group A=22 patients with healthy implants, group B=12 patients with peri-implant mucositis
- Dosage: 1 lozenge daily (2 x 10⁸ CFU/day)
- Duration: 1 month with probiotic treatment, followed by 7 months of washout period, then 1 month with placebo, and 7 months of follow-up
- Primary endpoints: plaque index, probing depth, modified gingival index, peri-implant crevicular fluid volume, and concentrations of interleukin (IL)-1β, IL-6 and IL-8

Further reading

- Vicario M et al. Clinical changes in periodontal subjects with the probiotic Lactobacillus reuteri Prodentis: a preliminary randomized clinical trial. Acta Odontol Scand. 2013;71:813-819
- Twetman S et al. Short-term effect of chewing gums containing probiotic Lactobacillus reuteri on the levels of inflammatory mediators in gingival crevicular fluid. Acta Odontol Scand. 2009;67:19-24
- Krasse P et al. Decreased gum bleeding and reduced gingivitis by the probiotic *Lactobacillus reuteri*. Swed Dent J. 2006;30:55-60

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