



Clinical effect of probiotic containing *Bacillus coagulans* on plaque induced gingivitis: A randomized clinical Pilot Study

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Summary:

Objective:

To evaluate the clinical effect of *Bacillus coagulans* on plaque induced gingivitis.

Method:

Thirty subjects with plaque induced were enrolled into the study. At baseline, Gingivitis Index (GI) and Plaque Index (PI) were assessed. Saliva samples were collected for glutathione peroxidase (GPx) activity analysis and to determine load of lactobacilli. Subsequently participants were randomly provided with chewable tablets to be consumed 3 x daily for 3 months containing 100 million colony forming units (CFU)/tablet of *B. coagulans* or without *B. coagulans* (placebo). After 3 months, recording of GI, PI and saliva sampling were repeated.

Result:

At baseline, mean GI and mean PI did not differ significantly between the groups. At re-evaluation, mean GI and bleeding on probing of the probiotic group were both significantly reduced ($p < 0.0001$) lower than in the placebo group. Mean PI level did not significantly differ between the groups. In the probiotic group, the mean glutathione peroxidase activity (Gpx) was significantly reduced ($p < 0.02$) lower than in the placebo group at re-evaluation.

Conclusion:

The consumption of probiotic containing *Bacillus coagulans* seems to modulate inflammatory response in plaque induced gingivitis.
