

Distal acupoints and Oral Low Level Laser therapy (LLLT) adjunct to conventional therapy in patients with chronic periodontitis – a preliminary study

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Background

The tissue healing capability of low level laser treatment (LLLT) was widely studied for decades and proved effectively as an adjunct to conventional periodontal treatment. (1-4) Since the distal LLLT effect on acupoints for tissue healing was still controversial, few studies were revealed to show the capability of damaged tissue healing of periodontal treatment. (5) This study was designed as a preliminary pilot investigation to find out the distal LLLT effects of on acupoints for tissue healing in these patients.

Methods

Patients with chronic periodontitis diagnosed with dental X-ray and periodontal probing collected in dental clinic. At least 8 affected teeth (area) in each patient was selected into this study. The affected area probing depth was average 4~6mm. Using the low level laser, 150mW, total energy output 3J/cm², was applied to the affected area and Hegu (LI4), Quchi (LI11) two acupoints. The laser was given during the 4 sessions with conventional subgingival deep curettage for the lesion site.

In the first 6 patients whose affected teeth received LLLT on local area, and the distal acupoints were applied with the same energy totally in this 4 sessions combined with the conventional periodontal treatments. Another 6 patients receiving conventional curettage treatment acted as the control group.

The measured parameters were bleeding on probing (BOP) and probing pocket depth (PPD) which stand for the inflammation of the gingivae and the reattachment (repair) of the gingival tissue respectively. (6)

Results

LLLT applied to either local affected area and distal acupoints LLLT had more anti-inflammatory effect than the control group (conventional therapy only) at the very first week follow-up.

Conclusions

LLLT has better anti-inflammatory capability than conventional treatment at the first-week follow up. There are no statistical significance between oral direct LLLT and

distal acupoints LLLT in anti-inflammation process. A double-blinded randomized controlled trials is required in the future.

Keyword: LLLT LASER ACUPOINT

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