

## Comparison of the Effect of Doxycycline and Licorice on Chronic Periodontitis – A Clinical Trial Study

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### Abstract

**Background and Aim:** Host modulatory therapy (HMT) is a new method that has been used as adjunctive therapy for periodontal diseases. Licorice tablet contains an extract with anti-inflammatory effects. Considering that patients prefer herbal medicine consumption, this study aimed to compare the effect of licorice tablet and doxycycline on chronic periodontitis.

**Materials and Methods:** In this interventional clinical trial study, 45 patients with mild to moderate chronic periodontitis were selected. Plaque Index (PI), Pocket Depth (PD), Clinical Attachment Loss (CAL) and Bleeding on Probing (BOP) were recorded for all periodontal patients. Then scaling and root planning was done and patients were divided into three groups.

In the first group, a 20mg doxycycline capsule was given to each patient daily, the second group was given a 490mg licorice tablet per day and the third group was given a placebo capsule per day. After 6 weeks, all the above-mentioned parameters were recorded again for all patients. Chi-square, paired sample T and one-way ANOVA tests were used for data analysis.

**Result:** mean of PD, CAL & BOP reduced significantly after treatment in each of three groups ( $P < 0.05$ ). Mean difference of PD, CAL and BOP between two groups of doxycycline and licorice was not significant. ( $P = 0.54$ ), ( $P = 0.74$ ) and ( $P = 0.64$ ) respectively.

**Conclusion:** licorice decreases periodontal clinical indices similar to doxycycline tab in chronic periodontitis.

**Keywords:** *Chronic periodontitis; Doxycycline; Licorice, Clinical Trial*