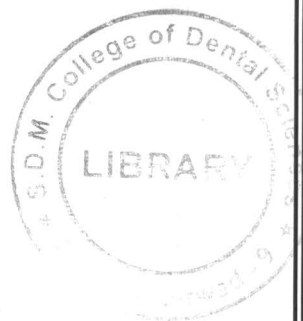


**"TREATMENT OF CHRONIC PERIODONTITIS WITH DIODE LASER
AS AN ADJUNCT TO NON SURGICAL PERIODONTAL THERAPY:
A CLINICAL AND MICROBIOLOGICAL STUDY"**



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Under The Guidance Of

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ABSTRACT

Background & objectives:

The purpose of the present study is to compare and determine the effect of adjunctive use of diode laser therapy (Biolase) with scaling and root planning (SRP) and SRP alone, on the improvement of clinical parameters and microbiological parameters.

Methods:

A total of 30 subjects (both male and female), aged between 30 and 50 years were selected for the study. The selected sites were divided into Group A (Scaling and root planning) and Group B (Scaling and root planning + Laser). The clinical parameters such as Probing pocket depth, Clinical attachment loss, Plaque Index, Gingival Index, Bleeding on probing and microbiological parameter like Spirochetal count were recorded at baseline and at 3 months postoperatively.

Results:

Both treatments SRP, SRP + laser resulted in significant decrease in probing pocket depth with a difference of 2.10 mm and 2.03 mm , and clinical attachment loss is decreased with a difference of 2.33 mm and 1.90 mm from baseline to 3 months which is not statistically significant between the two groups. The plaque index, gingival index, bleeding on probing were also reduced in both the groups. Spirochetal count was decreased in both the groups from baseline to 3 months, but when compared there was no statistical significance between the two groups.

Conclusion:

The present data suggests that treatment of chronic periodontitis with either diode laser (Biolase) + SRP therapy or SRP alone results in statistically significant improvements in the clinical parameters and microbiological parameter. The improvement in the clinical parameters with diode laser therapy (Biolase) + Scaling and root planning when compared to scaling and root planning alone is not statistically significant and when microbiological parameter like Spirochetal count is compared between the groups it was found to be statistically significant. Therefore, apart from the patient compliance, less discomfort and less time consumption diode laser therapy (Biolase) + SRP therapy may have little to no benefit beyond SRP alone.

Keywords:

Chronic periodontitis, Scaling and root planning, Diode laser therapy (Biolase), Spirochetes.