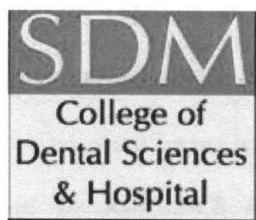


**EFFICACY OF SUBGINGIVALLY DELIVERED *Centella asiatica* AND
Punica granatum EXTRACTS AS AN ADJUNCT TO SCALING AND ROOT
PLANING IN THE TREATMENT OF CHRONIC PERIODONTITIS
- A CONTROLLED CLINICAL TRIAL.**



By

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Dissertation Submitted to the

Rajiv Gandhi University of Health Sciences, Bangalore, Karnataka

In partial fulfillment of the requirements for the degree of

MASTER OF DENTAL SURGERY

In

**PERIODONTICS AND ORAL IMPLANTOLOGY
2011-2014**

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ABSTRACT

Background and Objectives:

The natural products derived from medicinal plants have proven to be an abundant source of biologically active compounds, many of which have been the basis for the development of many newer drugs. The objective of this investigation was to assess the efficacy of locally delivered *Centella asiatica* (*C. asiatica*) and *Punica granatum* (*P. granatum*) as an adjunct to scaling and root planing in treatment of chronic periodontitis.

Materials and Methods:

Local delivery system for *C. asiatica* and *P. granatum* extracts were prepared in type I hydrolysed collagen base. Antibacterial activity of the extracts and prepared pellets were analyzed by evaluating the MIC. The clinical efficacy of their adjunctive use was evaluated in 225 sites in 27 subjects diagnosed with chronic periodontitis randomised into 3 groups: Group 1 (test, n= 75 sites) receiving scaling and root planing with subgingival delivery of medicated pellets; Group B (placebo control, n= 75 sites) receiving scaling and root planing with subgingival delivery of unmedicated pellets; Group C (control, n= 75 sites) scaling and root planing alone.

Clinical assessment included evaluation of bleeding on probing, probing pocket depth and relative attachment levels at baseline, 1 month and 3 months post-treatment.



Results:

Subgingival delivery of *C. asiatica* and *P. granatum* in addition to scaling and root planing resulted in significant reductions in clinical parameters ($p < 0.05$). However, they failed to show any statistically significant reductions when compared to scaling and root planing alone.

Interpretation and Conclusion:

Subgingivally delivered *C. asiatica* and *P. granatum* in adjunct to scaling and root planing though efficacious, failed to demonstrate any added benefit as compared to scaling and root planing alone.

Keywords:

Centella asiatica, *Punica granatum*, Chronic Periodontitis, Minimum Inhibitory Concentration, Gingival Bleeding on Probing.