

Comparative Analysis of Local Drug Delivery of 1.2% Simvastatin Vs 1.2% Rosuvastatin Gel as an Adjunct to Periodontal Therapy on Clinical and Metabolic Control in Patients of Chronic Periodontitis Diagnosed With Type 2 Diabetes Mellitus

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Abstract:

Background: Chronic periodontitis is an inflammatory multifactorial disease of tooth supporting tissues, modulated by various systemic risk factors such as diabetes. The periodontal disease is supposed to increase its severity and complicate metabolic control. The effect of local drug delivery as an adjunct to SRP has been reported to improve the metabolic variables in diabetes mellitus. Thus, in present study, one of the newest drugs statins have been considered with potential role in periodontal regenerative therapy. The aim of this clinico-biochemical study is the clinical & metabolic control in patients newly diagnosed [at dental visit] with type 2 diabetes mellitus with chronic periodontitis by evaluating the effect of locally delivered different statins as an adjunct to SRP.

Methods: Twenty sites (two contralateral sites per diabetic-patient) were categorized into two treatment groups: group A, SRP plus 1.2% SMV; group B with SRP plus 1.2% RSV gel. Clinical parameters were recorded at baseline and at 3 and 6 months. IBD fill was analyzed radiographically at baseline and 6 months.

Results: Mean PD, PI score reduction and mean CAL gain were found to be greater in the SMV sites than the RSV sites at 3, 6, months. Furthermore, significantly greater mean percentage of bone fill was indicated with improved IBD fill percentage of 29.62% at SMV as compared to 27.09% at RSV with significant HAIC values reductions.

Conclusion: There was a better improved periodontal parameters at sites treated with SRP with SMV than RSV gel in patients with type 2 diabetes and CP with significant improved glycaemic control.