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Comparative clinical response of periochip as local drug delivery system to calling and root planning in the treatment of chronic generalized periodontitis – A clinical and radiographic study-

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Objectives

About 50-60% of the cases of Armed forces personnel on dental inspection annually were found to be P3 category. These cases require scaling, root planning, or surgical periodontal intervention. This study aims to assess the clinical efficacy of periochip as a local drug delivery agent in chronic generalized periodontitis. Another objective is to compare the clinical radiological parameters achieved by periochip as adjunct to scaling and root planning in the treatment of chronic periodontitis.

Method

A total of 60 subjects were selected for the study without any systemic disease. A minimum of 2 anterior and 2 posterior teeth involving a pocket probing depth of 5-8 mm were selected. Probing pocket depth and clinical attachment levels of 2 anterior and 2 posterior teeth were measured. Bleeding index and OHI(S) index were recorded. Scaling and root planning were performed in all teeth. In 1 anterior and 1 posterior tooth Periochip was placed. The other teeth were considered as controls. Coe pack was placed at the site where periochip was inserted. Patients were frequently followed up for clinical as well as radiograph evaluation.

Results

On the basis of clinical and radiological findings use of chlorhexidine chip along with scaling and root planning, the sites most likely to be responsive are of refractory diseased sites and areas inaccessible to instrumentation. Results showed that the adjunctive use of local drug delivery in the form of chlorhexidine chip along with scaling and root planning in pockets ≥ 5 mm resulted in significantly better improvement in gingival bleeding index, reduction of pocket probing depth and gain in the attachment level as compared to scaling and root planning alone and scaling at 9 month follow up visit..

Recommendations

It is recommended that use of chlorhexidine chip can be regularly used in all cases including medically compromised patients who are not fit to undergo surgical intervention for localized periodontitis.