ABSTRACT

BACKGROUND: The goal of periodontal treatment is to suppress or eliminate putative subgingival periodontal pathogens. Local delivery of antimicrobials in sustained or controlled delivery systems is used to enhance the effect of non surgical therapy. The purpose of the present study is to investigate the effectiveness of subgingivally delivered 0.5% Azithromycin gel and 2 mg of tetracycline hydrochloride fibers as an adjunct to SRP in the treatment of chronic periodontitis.

AIM: To compare the clinical effectiveness of subgingivally delivered 0.5% Azithromycin gel and 2 mg of tetracycline hydrochloride fibers in the treatment of chronic periodontitis with Non-surgical periodontal therapy.

METHODS: A total of 60 patients were selected randomly and divided into 3 groups (SRP, SRP+AZM Gel, SRP+Tetracycline Fiber). Clinical parameters such as plaque index, sulcus bleeding index, probing pocket depth and clinical attachment level were recorded at baseline, 1 month, 2 months and 3 months post operatively.

RESULTS: Significant reduction in mean pocket depth and gain in attachment level was observed in AZM gel and Tetracycline fiber group as compare to baseline but there was no significant difference between the two groups at three months. Greater percentage of reduction in clinical parameters is observed for AZM gel group than Tetracycline fiber group at three months but it was statically not significant.

CONCLUSION: All the three modalities of treatment were efficient in improving the clinical parameters and there is no statistically significant difference between AZM & Tetracycline group. In future, clinical trials with larger samples and long-term follow-up period may be employed to further explore the potential benefit of AZM as a local drug delivery agent.

KEYWORDS: Azithromycin gel, local drug delivery, chronic periodontitis, Tetracycline fibers.