Microbiological and Clinical Effects of Metronidazole and ciprofloxacin In Periodontitis.

Esfehanizade N[1], Khalilinejad S[2]

1Assistant Professor, Department of Periodontics, Islamic Azad University, Dental Branch, Tehran, Iran
2Dentist

Abstract

Background and Aim:

Approximately 500 bacteria species inhibit in periodontal pockets. Association between Aggre gatibacter Actino my cetem comitans and destructive and progressive forms of periodontitis has been demonstrated. The aim of this study was to evaluate the microbiological and clinical effects of metronidazole-ciprofloxacin therapy in subjects with periodontitis.

Materials and Methods:

In this experimental randomized double-blind controlled clinical trial, 24 patients with at least 4 sites with ≥4mm of clinical attachment loss, bleeding on probing and detection of A.a were included. Measurement of Clinical attachment loss, gingival index, plaque index and bleeding on probing were done. All the patients received scaling/root planning and oral hygiene instruction. The patients received drug and placebo. Bacterial culturing and measurement of Clinical attachment. Attachment loss, gingival index, plaque index and bleeding on probing were done at the 10days, 3 and 6 months later. Data were subjected to Paired t-test and Mann-u-Whitney test for data analysis.

Results:

Bleeding on probing, Gingival Index and A.a Colony count on 3rd and 6th month in control and test group were (33/3 و ۳۷/5)Vs (0), (1/2±0/46-1/21±0/42 Vs(0/06 ±0/11-0/10±0/13),(9/15±10/88-12/56±11/35)Vs(0/75±0/99 - 1/96±2/15) respectively. These differences were statistically significant (p<0/05). No significant difference was seen between two groups in Clinical attachment. Attachment loss and plaque index in all studied periods also gingival index, colony count in10 days showed no significant difference.

Conclusion: Administration of Ciprofloxacin plus Metronidazole as an adjunct to mechanical therapy can provide effective periodontal healing and Aa eradication from periodontal tissue.

Keywords: Ciprofloxacin, Metronidazole, Periodontitis, microbiology

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***Corresponding Author**: E*sfahanizadeh N–assistance professor of periodontics Dept, Islamic Azad university dental branch Tehran. Tel: 22564571
E-mail: n_esfahanizadeh@yahoo.com

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