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The Average Number of Candida Albicans Colonies in Gingival Crevicular Fluid in Patients with Chronic Periodontitis

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Abstract

Background and Aim: Periodontitis is an inflammatory disease of tissues that support the teeth with microbial etiology. Candida albicans is dimorphic fungus that the most common found in periodontal pocket. The aim of this study was to comparing the average number of colonies of candida albicans in gingival sulcus in patients with chronic periodontitis regarding to severity of disease.

Materials and Methods: The case control study included 84 patients, the range of age was 25-55 years.4 group composed 21 individuals each group: healthy subject, slight periodontitis, moderate periodontitis and severe periodontitis that were defined according the amount of attachment loss. Samples were acquired using sterile paper points from gingival sulcus then, centrifuged by 1000 rpm/min speed. Samples were cultured on chrome agar medium and incubated at 37ºc for 24-72h. Yeast colonies that grew on the surface of plates were counted. To analyze the number of colonies of Candida albicans Anova test was used.

Result: In healthy subjects only 6 patients (28 perecent) were positive for these microorganism while all of the patients with chronic periodontitis presented yeast in the periodontal pockets. Statistical difference were observed between healthy subject, slight periodontitis, moderate periodontitis and severe periodontitis. ($p<0/001$). The highest number of colonies candida albicans were found in patients with severe chronic periodontitis.

Conclusion: The result of the present study indicated the average number of colonies of candida albicans was associated with severity of chronic periodontitis.

Keywords: *Chronic periodontitis, Candida albicans, Gingival Crevicular Fluid*

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