

Evaluation of Relation between Cigarette Smoking and Colony Count of Salivary Candida

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Abstract

Background and Aim: Oral Candidiasis is the most common oral infection in humans. Smoking is considered as a local predisposing factor for oral candidiasis. The aim of this study was to investigate the relationship between smoking and the number of *Candida albicans* colonies in saliva.

Materials and Methods: In this Historical Cohort study, 60 people which were divided into two groups (30 in smokers group and 30 in control group) were examined. They were the same in terms of age, gender and use of medicine. About 1cc of unstimulated saliva was collected by the spitting method. Then, the samples were cultured on blood agar and sabrodextrose agar media and incubated at 35°C for 24 hours. Germ tube test was used to determine the *Candida albicans* species. The colonies were calculated in 1cc of saliva and the data were analyzed by MANN-U-WHITNEY test.

Result: The results indicated that the mean *Candida albicans* colony count was significantly higher in smokers group (3.45 ± 1.37) than non-smokers (1.23 ± 1.53), ($p = 0/0001$).

Conclusion: The prevalence of *Candida albicans* in smokers' saliva was significantly higher than non-smokers that indicates the etiologic effect of cigarette smoking in increase of *Candida albicans* colonies.

Keywords: *Cigarette smoker, Oral Candidiasis, Fungal infection, Saliva*