The Study of Community Periodontal Index of Treatment Needs (CPITN) in patients with Chronic Obstructive Pulmonary Disease (COPD), Ardabil province, 1392

Background:
Chronic Obstructive Pulmonary Disease is one of the most prevalent diseases, it's considered the important cause of worldwide death. The recent findings have shown that oral cavity infections, especially periodontitis may worsen the course of some of systemic diseases such as Chronic Obstructive Pulmonary Disease (COPD).

Aim:
The aim of present study was to evaluate the periodontal health status using CPITN index and to compare it between case and control groups.

Materials and Methods:
This study was a case-control study .The case group comprised 23 male, with confirmed COPD. The control group consisted of 33 healthy individuals.
Both case and control groups, referred to specialized and sub-specialized clinic of the Ardabil Medical University and were selected according to our inclusion / exclusion criteria.
The pulmonologist made the diagnosis of respiratory and non–respiratory disease.
A questionnaire was recorded with the following key data: patient's age, gender, place of residence, their history of smoking, results of pulmonary function test, MMRC, CAT and exacerbations rate. Data regarding the frequency of dental visits, oral hygiene care and the results of dental examinations were recorded in a dental questionnaire based on Community Periodontal Index of Treatment Needs (CPITN). Data was also analyzed with descriptive statistics, Chi Square, Fisher, Monte Carlo tests and analysis of variance (ANOVA) using SPSS16 software.

Results:
The results of this study indicates a significant association between Community Periodontal Index of Treatment Needs (CPITN) and the test groups (P=0.001). There is no healthy periodontium in group with COPD and the cods three and four indicate the increasing incidence of pathologic pocket depth and worsening periodontium status significantly higher in COPD group. The above results suggest that subjects in the COPD group had poorer periodontal health when compared to those in the non COPD group.

Also a significant relationship between Forced Expiratory Volume after one second (FEV1) and different codes of Community Periodontal Index of Treatment Needs (CPITN)was duly noted (P=0.041).

Conclusion:

The present study indicates a significant association between Periodontal Diseases (PD) and Chronic Obstructive Pulmonary Disease (COPD). After this important study we can hypothesis that periodontitis may act as a potential risk factor for the exacerbation of COPD.

It can be therefore suggested that improved oral hygiene as well as frequent dental visits may reduce the risk of periodontal diseases and probably reduce the exacerbations and control the course of chronic respiratory disease, such as COPD.

Key Words:

CPITN, Community of Periodontal Treatment Needs, COPD, FEV1.