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The effect of cigarette smoking on the severity of periodontal diseases among adults of
Kothamangalam Town, Kerala

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Introduction

1. What is the author's central purpose? Is it clearly stated?

The concept that smoking tobacco may be prejudicial to periodontal health has been a never-ending discussion. The authors of this article have clearly highlighted the central purpose of this research trail as there has been a lot of scientific evidence that has proved that smoking is one of the major risk factors for the progression of periodontal diseases. The aim of this review is to discuss the reported association between smoking and periodontal disease.

2. Write a 150-200-word summary of the article that accurately conveys the context of the article.

An experiment has been carried out that aims at examining the difference in the periodontal status of current smokers, former smokers, and non-smokers. A total number of 30 subjects within the age group of 30–50 years were selected among the population of Nellikuzhi, Kothamangalam, Kerala. There were some exclusions like no females, patients with no diabetes or who were under antibiotics for past 3 months. The groups and the smoking status were assessed by a self-reported questionnaire where participants were asked to estimate the number of cigarettes consumed per day and the number of years they smoked. Clinical parameters such as oral hygiene index-simplified, gingival index, probing PD, and CAL were assessed. It has been found that the current smokers had a higher percentage of sites with mean probing depth, and greater mean clinical attachment level than former smokers and non-smokers. To conclude, smoking cessation counseling is considered important, which is an issue of patient compliance but for the strongly affected patients, a nicotine replacement therapy has been recommended.

3. Does the article meet the standards to be considered an appropriate/academic/scholarly source? Justice your choice.

Yes, the article does meet the standards to be considered an appropriate/academic/scholarly source. It has all the references that are required, and the authors of this article belongs to the department of periodontics from different universities. Moreover, the article clearly states the fact that it can be used as a reference if the authors are credited for it.

4. Are the qualifications of the author(s) appropriate for an academic article? Briefly describe the authors' qualifications.

Yes, the qualifications of the author(s) are appropriate for an academic article. As all the authors are from the department of periodontics from the top universities in different parts of Kerala. They have all carried out an experiment in their respective fields and have taken all the necessary steps that are needed for an appropriate academic article.

5. When was the work published?

Received 2015 Apr 28; Revised 2015 Apr 28; Accepted 2015 May 22.

Methods

1. Is the experimental design clearly described? Describe the design in your own words.

The author has clearly described the experimental design. The author used pilot study for this design. There were 3 groups of patients. Each group had 10 patients according to the

smoking status. Group I included the current smokers, those who were smoking 100 or more cigarettes over their lifetime and also smoked during interviews. Group II were former smokers, they were smoking 100 or more cigarettes but were not current smoker. And the Group III were non smoker, those who had never smoked cigarettes in their lifetime. The selected patients were good in health with the age group of 30-50 years in this study and systemic diseases like diabetes or high blood pressure and female patient was excluded and they also did not include the 3rd molar for measuring the clinic attachment level.

2. Have the possible influences on the findings been identified and controls instituted?

Describe and evaluate the use of controls and possible influences.

From this experimental study they have identified many possible impacts and found different influences in the 3 groups. The periodontal examination was done by determining oral hygiene status, bleeding on probing, pocket depth and clinical attachment loss. For oral hygiene status measured they used the simplified oral hygiene index (Greene and vermillion) and to determine the severity of gingivitis, they used the gingival index.

3. Has the sample been appropriately selected (if applicable)? Describe the sample used in the study and evaluate its appropriateness.

As mentioned before, the smoking status was accessed by a self-reported questionnaire. They asked all the participants to calculate the number of cigarettes they consumed per day and also for the number of years in their lifetime. To find the smoking exposure they use the term of pack-years and they multiply the number of packs of cigarettes smoked per day by the number of years smoked. In this way they compare the experimental therapy to the control therapy. During the experimental study they measure clinical parameters and estimated that,

current smokers had a higher percentage sites with mean probing depth and greater mean clinical attachment level than former smokers and non-smokers. The CAL for current smoker was 5.20 ± 2.440 and for the non-smokers was 1.50 ± 1.265 . The significant difference ($P < 0.05$) was found in CAL between current smoker (group I) and non-smokers (group III) which was very high in current smoker that lead to increased risk for future periodontal destruction like severe bone loss, tooth loss, reduce the blood circulation in oral cavity and also can causes dry mouth with can causes lots of cavities. For the former smokers, they had lower risk for severe periodontitis since they were quitting smoking.

4. Is the experimental therapy compared appropriately to the control therapy?

Describe and evaluate the use of control group.

Yes, the experimental therapy is compared appropriately to the control therapy. The aim of the experiment was to show the differences in the periodontal status of current smokers, former smokers, and non-smokers. To have a successful experimental therapy, three groups of ten people each were made according to the smoking status. All clinical parameters were taken down and statistical analysis was carried out in a timely manner.

5. Is the investigation of sufficient duration? Evaluate and explain your reasoning.

Yes, the investigation was of sufficient duration to conclude that they had intended to. The study was to find the association between smoking to that of risk of periodontitis. They have successfully found the association and also all the probable solution that are needed to reduce the risk of periodontitis.

