AN EPIDEMIOLOGICAL STUDY IN GUJARAT BY COMMUNITY PERIODONTAL INDEX OF TREATMENT NEEDS (CPITN)

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ABSTRACT
3696 subjects (15 to 44 yrs.) attending Govt. Dental College and Hospital were screened for their periodontal treatment needs using the Community Periodontal Index of Treatment Needs (CPITN). Calculus predominated as the most frequently recorded CPITN score and affected over 70 % of the population. On the other hand, only a few persons below 20 years had CPITN score 4. The assessed treatment need was predominately scaling and oral hygiene education. (TN2) The need for deep scaling and/or surgery (TN3) was very low.

KEY WORDS: CPITN, Calculus, Oral hygiene, Scaling

INTRODUCTION
The periodontal disease is one of the most prevalent dental diseases affecting the adult population of the world varying only in degree from mild to severe. Its prevalence has been reported in various studies conducted in different parts of the globe signifying its need for control at various levels of involvement. Most of the epidemiological studies conducted before 1982 have been confined to the assessment of prevalence of the disease amongst a particular population without focusing attention to the treatment need at different stages of diseases. Now there is a trend to study the prevalence of a disease in a particular population and assessment of treatment needs simultaneously. Community periodontal Index of Treatment Needs (CPITN) is an index which has been formulated adopted and utilised by World Health Organisation (WHO) in epidemiological studies conducted in several countries of the world. This index entails study of both prevalence of periodontal disease in a population and assessment of treatment needs for the same1. It is claimed to be a quick and dependable index where a large population can be covered in a short period. Till now a good number of epidemiological studies have been conducted by CPITN in different countries2,3,4,5,6,7. However a very few epidemiological studies have been conducted in India utilising this index7,8,9. The study therefore was conducted with the following aims and objectives.

1. To assess the periodontal health status and treatment needs amongst patients attending OPD of Government Dental College and Hospital, Ahmedabad.
2. To predict for planning of periodontal care programmes for population attending OPD of Government Dental College and Hospital, Ahmedabad.

Methods
For the assessment of the periodontal status of a small population visiting OPD of Government Dental College and Hospital, Ahmedabad, CPITN recording were made for patients visiting within 3 months and selected at random without consideration of sex, religion, education, socioeconomic condition and systemic health. 3696 subjects were examined of age groups of 15-19 years, 20-29 years, 35-44 as suggested by Ainamo et al 1982.

The subjects were examined by a single examiner with the help of a plane mouth mirror and CPITN Probe. The clinical condition, scoring and treatment need procedure, were followed as suggested by Ainamo et al10. The teeth selected were 17, 16, 11, 26, 27, 47, 31, 36, 37.
Results
The survey findings were described in respect to the highest CPITN scores for each group and number and percentage of sextants affected by different scores in various age groups (Table 1 and 2). The finding of this survey was that calculus was the most predominant score in all the groups. In 15-19 years of age group 4.4 % were found with code 0, 23.68 % with code 1, 71.7 % with code 2, 0.22 % with code 2. In 20-29 years of age group 0.64 % were found with code 0, 0.82 % with code 1, 92.49 % were found with code 2, 5.95 % with code 3, and 0.18 % with code 4. In the 35-44 years of age group 0.53 % were found with code 0, 1.18 % with code 1, 71.63 % with code 2, 18.4 % with code 3 and 8.3 % with code 4.

Discussion

From this study it is evident that though calculus is widespread, involvement by score 4 and score 0 are much less. It indicates that periodontal disease is not common healthy people are less in number though destructive periodontal disease is not common, so it may be concluded that calculus in maximum cases does not produce advanced destructive periodontal disease. A study conducted by Butterworth and Sheiham showed that the treatment carried out in the general dental practice did not eliminate positive CPITN scores. There were significant reductions in the number of sextants with calculus and shallow pockets. So in general dental practice periodontal disease was rarely eliminated, but the level of disease could be reduced in large numbers of people, with limited amounts of simple treatment. Removal of calculus is a time consuming procedure, needs repetition at intervals.

Is it possible to allot such time and manpower to remove calculus at a community level? Relatively more percentage of people and sextants in the age group of 35-44 years were of CPITN score 4. So the question naturally may be raised whether it is possible to do complex treatment in 45 yrs. And above age group in community level. If the treatment into time and manpower, more than nine out of ten persons in Gujarat will require more than one hour for periodontal care. India’s health budget is low and the cost of the treatment may exhaust the annual budget of our health authorities, so it may not be practical.

Only the high risk group may be separated from the community study. This group needs much more attention. Therefore, most of the effort should be concentrated on the high risk group of people who will develop destructive periodontal disease oral hygiene education may be the most important aspect of periodontal treatment for those people with the sign of periodontal disease in community basis.

References

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