



A CROSS SECTIONAL STUDY OF PERIODONTAL DISEASE AMONG ADULTS NEAR A PRACTICE FIELD AREA OF A TERTIARY MEDICAL INSTITUTE OF RAIPUR , CG

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ABSTRACT

INTRODUCTION: Periodontal Disease as shown in previous studies is a major public health problem in India. The problem is dreadful among rural & lower socio-economic status. The present study was planned to assess the magnitude of Periodontal disease in a rural area.

METHOD: Study was designed as a cross sectional Analytical study . Study was conducted among adults residing near a practice field area of a tertiary Medical Institute. Interviewed and examined with the help of predesigned and Pretested questionnaire / Format . Study subjects were chosen by random sampling .

RESULTS: Among the total adults participated in the study the overall magnitude of A total of 20.8% had shallow periodontal pockets, dental calculus was the most predominant score in all age groups with 40% of the total population. The prevalence of shallow and deep periodontal pockets increased with increasing age. The prevalence of periodontal disease was observed to be higher in Females.

CONCLUSION: An increase in awareness of dental diseases on a community level along with better availability of health care facilities would be beneficial in reducing the prevalence of periodontal diseases Early diagnosis and prompt treatment can prevent further damage

KEYWORDS : Peri Odontal Diseases , Rural , Dental calculus , Raipur

INTRODUCTION

Dental health is often neglected by a vast majority of rural population in India . Periodontal disease is one of the most prevalent dental diseases affecting the adult population, with 10%-15% adults suffering from advanced periodontal disease worldwide¹. Timely treatment of periodontal problems is important to preserve the dentition and overall health of the oral cavity². In India, recent evidence indicates that rural populations have a higher prevalence of periodontal diseases. Oral disease patterns, and health care modalities are significantly different from those in urban areas^{3,4}. Studies conducted in India have indicated that periodontal diseases affect more than 50% of the population⁵. The rural population of India suffers from poor oral health due to lack of health education, awareness, infrastructure and oral health care facilities^{6,7,8}. The aim of the present study was to assess the periodontal disease status among the rural population near a practice field area of a tertiary Medical Institute of Raipur District , CG , India to assess the magnitude .

METHODOLOGY

After ethical committee approval study was done Over a period of 2 months .A cross sectional Analytical Study was conducted among adults near a practice field area of a tertiary Medical Institute of Raipur District CG, India . Adults between the age of 18 to 65 years were checked Participation in the study was voluntary and information regarding demographics and oral health status was collected via questionnaire and clinical examination. Additionally, all subjects participating in the study were provided information regarding oral hygiene and those in need of treatment were motivated and provided necessary care. All patients were examined using a sterilized CPI probe and mouth mirror in natural daylight. For the purpose of evaluating periodontal status, the Community Periodontal Index (CPI) guidelines were followed⁹. The mouth was divided into sextants . A particular sextant was examined only if there were two or more teeth present that were not indicated for extraction. Patients that did not fulfil this criterion were excluded from the sample. In order to assess the periodontal status, ten index teeth 17,16,11,26,27,37,36,31,46,47 were examined. Indicators of periodontal status assessed were: gingival bleeding, calculus and periodontal pockets. Data was recorded using the WHO

oral health assessment form and later transferred for further analysis⁹.

A significance level of 0.05 was used in all analyses. Information was analysed by using the Microsoft Excel and SPSS (Version 20 , IBM , USA) . Chi square test was used to test the statistical significance.

RESULTS

Out of total subjects examined and 84% (n=365) conformed to the inclusion criteria. The remaining 16% were excluded from the CPI score analysis either due to missing index teeth or edentulousness. Age of the subjects ranged from 18 to 65 years and majority 48% were in the age group of 18 to 35 years. Gender distribution of the sample was 44 % males and 56% females respectively. Overall, 39.2% had either healthy gums (score 0) or bleeding-on-probing (score 1) as their worst CPI score. A total of 20.8% had shallow periodontal pockets (score 3) or deep periodontal pockets (score 4) as their worst finding. It is noteworthy that dental calculus (score 2) was the most predominant score in all age groups with 40 % of the total population . The prevalence of shallow and deep periodontal pockets increased with increasing age. The prevalence of shallow periodontal pockets increased with age from the youngest group to the oldest age groups. Similarly, the prevalence of deep periodontal pockets also increased across the same age groups. Additionally, the prevalence of periodontal disease was observed to be higher in females in our study however, this difference was not significant.

DISCUSSION

The CPI scores of our sample showed that 39.2% of the sample population had good periodontal health or no more than bleeding-on-probing as their worst score and our results were similar to results from studies conducted in Rural Punjab¹⁰

our study sample had shallow periodontal pockets as their worst sign of periodontal disease and this finding was similar to that reported in studies conducted in Chandigarh (14.6%), Nilgiris (15.8%) and Chennai (12.3%)^{3,11,12}

Our results show that periodontal health of our study sample was poor and this indicates a dire need for periodontal

treatment protocols including plaque control, oral prophylaxis and dedicated therapy for shallow and deep periodontal pockets. The prevention and control of periodontal disease depends on daily attention to careful oral hygiene, however, since oral health not being considered as a key player towards ensuring dental well being, the combination of poor oral hygiene and poor access to health care providers is probably the main trigger for painful and/or chronic periodontal conditions in rural areas.

CONCLUSION:

Our study indicates the general trend towards periodontal health status in the rural population that is gradually worsening with age. Some of the reasons contributing to this include lack of knowledge regarding dental diseases among the rural population, limited preventive and therapeutic services combined with expense of dental treatment. There is a dire need for a comprehensive survey of all districts. Government hospitals, health centers and dispensaries, dental teaching institutions and even private practitioners can generate such data, which will contribute tremendously to the formulation of oral health care policy.

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