

D Y PATIL DENTAL SCHOOL

DEPARTMENT OF
PUBLIC HEALTH DENTISTRY



**EPIDEMIOLOGY
OF
PERIODONTAL
DISEASES**

Uses of epidemiology in study of periodontal diseases:

- **To study historically the rise and fall of a disease in a population.**
- **To diagnose community problems of health and disease by study and analysis of the incidence, prevalence and morbidity.**
- **To estimate the individual's risk and chances of developing the disease.**

- **To help complete the clinical picture and natural history of disease by group analysis.**
- **To identify clinical syndromes by observation of group behaviour.**
- **To evaluate the need and effectiveness of health services.**
- **To search for causes of disease and of health by observation of group habits, customs and models of life.**

Gingivitis – causing inflammation of gingiva.

Periodontitis – causes chronic progressive destruction of the periodontal membrane and alveolus.

□ Host

□ Agent

□ Environment

HOST FACTORS

- Age**
- Sex**
- Race**
- Education**
- Income**
- Geographical Areas**
- Psychological and Cultural Factors**
- Intra oral variations**
- Endocrinal Changes**

- **Local host factors**
- **Iatrogenic Factors**
- **Oral Hygiene**
- **Smoking and smokeless tobacco**
- **Occupational Habits**
- **Neurosis**
- **Misuse of the tooth brush**
- **Concomitant Disease**
- **Emotional factors**

AGENT FACTORS

- Plaque
- Calculus
- Bacterial Flora
- Chemical Hazards
- Physical Hazards

ENVIRONMENTAL FACTORS

○ Nutrition

○ Fluoride

○ Degree of urbanization

ETIOLOGY OF PERIODONTAL DISEASE

Local

Systemic

LOCAL FACTORS

- **Plaque**
- **Calculus** - **Supra gingival**
- **Subgingival**
- **Materia alba**
- **Faulty dentistry**
- **Abnormal habits**
- **Food impaction**
- **Diet**
- **Other irritants**
- **Improper tooth brushing**
- **Abnormal anatomy**
- **Erupting teeth**
- **Factors of occlusal function**

SYSTEMIC FACTORS

- **Nutrition**
- **Vitamins**
- **Protein deficiency**
- **Debilitating diseases**
- **Blood dyscrasias**
- **Endocrinological disorders**
- **Pituitary disorders**
- **Puberty pregnancy**
- **Allergies and drug idiosyncrasias**
- **Radiation**
- **Psychogenic factors**

FACTORS AFFECTING THE PERIODONTAL DISEASE PREVALENCE, INCIDENCE AND SEVERITY

- Age
- Severity
- Sex
- Race
- Education

- Income
- Place of residence
- Geographical Areas
- Psychological and Cultural Factors
- Diet
- Oral Hygiene Practices
- Professional dental care
- Socio-economic factors
- Distribution of gingivitis in the oral cavity

PREVALENCE OF PERIODONTAL DISEASE ACCORDING TO THE GEOGRAPHIC LOCATION

In adult population

<i>Name</i>	<i>Year</i>	<i>Area</i>	<i>Prevalence</i>
Marshal & Day	1940	North India	60%
Mehta F.S.	1953	Bombay	100%
Greene J.C.	1960	Bombay	90.3%
Gupta O.P.	1962	Trivandrum	96.9%
Chawla T.N.	1963	Lucknow	100%
Mighani D.C.	1965	Madras	94.9%
Mangi S.L.	1966	M.P.	98.9%
Vacher B.R.	1977	Amritsar	86.6%
Vijaykar H.N	1979	Bombay	92.7%

In child population:

<i>Name</i>	<i>Year</i>	<i>Area</i>	<i>Prevalence</i>
Marshal & Day	1940	North India	60%
Marshal, Day & Shourie	1947	Girls of high socioeconomic status in Lahore	73.3%
Dutta A.N.	1965	Calcutta	89%
Miglani D.C.	1965	Madras	83%

ELEMENTS OF PREVENTION OF PERIODONTAL DISEASE

- Health education
- Tooth brushing
- Oral hygiene aids
- Chemotherapy of dental plaque infections
- Dietary factors in plaque control
- Disease control by professionals
- Community factors related to dental health

□ Group programs for children

- Professional cleaning every 2nd week
- Interdental cleaning
- Fluoride cleaning paste with oral hygiene instructions
- Prior to and one to two years after trial the parents were involved in explanatory and group seminar sessions

□ Group program for adults

- Instructions in oral hygiene
- Scaling
- Root planning
- Polishing with a fluoride paste

THANK YOU