

Subject Code: 1DS1010309	Subject Title: <u>Periodontology</u>
Pre-requisite Subject	- NONE -

OBJECTIVES:

The student shall acquire the skill to perform dental scaling, diagnostic tests of periodontal diseases, to use the instruments for periodontal therapy and maintenance of the same. The student shall develop attitude to impart the preventive measures namely, the prevention of periodontal diseases and prevention of the progress of the disease. The student shall also develop an attitude to perform the treatment with full aseptic precautions; shall develop an attitude to prevent iatrogenic diseases; to conserve the tooth to the maximum possible time by maintaining periodontal health and to refer the patients who acquire specialist's care.

Teaching Scheme (Hours per week)				Evaluation Scheme (Marks)						
Lecture	Tutorial	Practical	Credit	Theory(T)				Practical (P)		
				University Assessment	Continuous Assessment	Viva Voce	Total Marks	University Assessment	Continuous Assessment	Total Marks
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Syllabus

1. Introduction: Definition of periodontology, periodontics, periodontia, Brief historical background, Scope of Periodontics.
2. Development of periodontal tissues, micro structural anatomy and biology of periodontal tissues in detail gingiva, junctional epithelium in detail, Epithelial-mesenchymal interaction, periodontal ligament, Cementum, Alveolar Bone.
3. Defensive Mechanisms in the oral cavity: Role of Epithelium, Gingival Fluid, Saliva and other defensive mechanisms in the oral cavity.
4. Age changes in periodontal structures and their significance in Geriatric Dentistry: Age changes in teeth and periodontal structures and their association with periodontal diseases.
5. Classification of Periodontal Diseases:
 - Need for classification Scientific Basis of classification
 - Classification of gingival and periodontal diseases as described in World Workshop 1989
 - Gingivitis:
 - Plaque associated, ANUG, steroid hormone influenced, Medication influenced, Desquamative gingivitis, other forms of gingivitis as in nutritional deficiency, bacterial and viral infections etc.
 - Periodontitis:
 - Adult Periodontitis, Rapidly progressive periodontitis A&B, Juvenile Periodontitis {localized, generalized, and post juvenile}
 - Prepubertal periodontitis
 - Refractory periodontitis
6. Gingival diseases:

- Localized and generalized gingivitis, Papillary, and marginal and diffuse gingivitis
 - Etiology, pathogenesis, clinical signs, symptoms and management of
 - Plaque associated gingivitis
 - Systemically aggravated gingivitis {sex hormones, drugs and systemic diseases}
 - ANUG
 - Desquamative gingivitis-Gingivitis associated with lichen planus, pemphigoid, pemphigus and other vesiculobullous lesions.
 - Allergic gingivitis
 - Infective gingivitis- Herpetic, bacterial and candidal
 - Pericoronitis
 - Gingival enlargement {classification and differential diagnosis}
7. Epidemiology of Periodontal diseases
- Definition of index, incidence, prevalence, epidemiology, endemic, epidemic and pandemic
 - Classification of indices {irreversible and reversible}
 - Deficiencies of earlier indices used in periodontics
 - Detailed understanding of Silness & Loe Plaque index, Loe & Silness Gingival index, CPITN & CPI
 - Prevalence of periodontal diseases in India and other countries
 - Public health significance {All these topics are covered at length under community dentistry. Hence, the topics may be discussed briefly. However, Questions may be asked from the topics for examination}
8. Etiology
- Dental plaque (Biofilm)
 - Definition, new concept of biofilm
 - Types, composition, bacterial colonization, growth, maturation and disclosing agents
 - Role of dental plaque in periodontal diseases
 - Plaque microorganisms in detail and bacteria associated with periodontal diseases
 - Plaque retentive factors
 - Material alba
 - Food debris
 - Calculus
 - Definition
 - Types, composition, attachment, theories of formation
 - Role of calculus in disease
- Food impaction
- Definition
 - Types, etiology
 - Hirschfield's classification
 - Signs, symptoms and sequelae of treatment
- Trauma from occlusion
- Definition, Types
 - Histopathological changes
 - Role in periodontal disease
 - Measures of management in brief

Habits:

- Their periodontal significance
- Bruxism & Parafunctional habits, tongue thrusting, lip biting, occupational habits

IATROGENIC FACTORS

Conservative dentistry

- Restorations
- Contact point, marginal ridge, surface roughness, overhanging restorations, interface between restoration and teeth

Prosthodontics

- Interrelationship
- Bridges and other prosthesis, pontics {types}
- Surface contour, relationships of margins to the periodontium, Gingival protection theory, muscle action theory & theory of access to oral hygiene

Orthodontics

- Interrelationship, removable appliances and fixed appliances
- Retention of plaque, bacterial changes

Systemic diseases

- Diabetes, sex hormones, nutrition {Vit. C & proteins}
- AIDS & periodontium
- Hemorrhagic diseases, Leukemia, clotting factor disorders, PMN disorders

9. Diagnosis

- Routine procedures, methods of probing, types of probes, (According to case history)
- Halitosis: Etiology and treatment. Mention advanced diagnostic aids and their role in brief

10. Prognosis: Definition, types, purpose and factors to be taken into consideration

11. Treatment plan: Factors to be considered

12. Periodontal therapy:

A. General principles of periodontal therapy, Phase I, II, III, IV therapy

Definition of periodontal regeneration, repair, new attachment and reattachment

B. Plaque control

- i. Mechanical tooth brushes, interdental cleaning aids, dentrifices
- ii. Chemical; classification and mechanism of action of each & pocket irrigation

13. Pocket eradication procedures

- Scaling and root planning
- Indications
- Aims and objectives
- Healing following root planning
- Hand instruments, sonic, ultrasonic and piezoelectric scalers
- Curettage & present concepts
- Definition
- Indications
- Aims and objectives
- Procedures & healing response
- Flap surgery
- Definition

- Types of flaps, design of flaps, papilla preservation
- Indications & contraindications
- Armamentarium
- Surgical procedure & healing response

TUTORIALS DURING CLINICAL POSTING:

1. Infection control
2. Periodontal instruments
3. Chair position and principles of instrumentation
4. Maintenance of instruments (sharpening)
5. Ultrasonic, piezoelectric and sonic scaling- demonstration of technique
6. Diagnosis of periodontal disease and determination of prognosis
7. Radiographic interpretation and lab investigations
8. Motivation of patients- oral hygiene instructions

Students should be able to record a detailed periodontal case history, determine diagnosis, prognosis and plan treatment. Student should perform scaling and root planning\

DEMONSTRATIONS:

1. History taking and clinical examination of the patients
2. Recording different indices
3. Methods of using various scaling and surgical instruments
4. Polishing the teeth
5. Demonstration to patients about different oral hygiene aids
6. Follow up procedures, post operative care and supervision

REQUIREMENTS:

1. Diagnosis, treatment planning and discussion and periodontal treatment – 15 cases
2. A work record should be maintained by all the students and should be submitted at the time of the examination after due certification from the head of the department.

Students should have to complete the work prescribed by the concerned department from time to time and submit a certified record for evaluation

Clinical Quota:

1. Case history taking: 5 cases (Case History attached)
2. Scaling: 15 cases

PRESCRIBED BOOK:

1. Glickman's Clinical Periodontology – Carranza
2. Fundamental of periodontal instrumentation & advanced root instrumentation (6th Ed.)- Gehrig, Jill
3. For Dental Hygienist- Wilkins