

III BDS PERIODONTOLOGY

Knowledge:

- To have adequate knowledge and understanding of the etiology, pathophysiology, diagnosis & treatment planning of various periodontal problems.
- To have understood the periodontal surgical principles like pre and post surgical management of periodontal diseases.
- Essential knowledge of personal hygiene and infection control, prevention of cross infection and safe disposal of hospital waste keeping in view the high prevalence of infectious disease

Skills

- To obtain proper clinical history, examination of the patient, perform diagnostic procedures and order essential laboratory tests and interpret them and to arrive at a provisional diagnosis about the periodontal condition.
- To perform with competence various periodontal nonsurgical procedures. To treat non- surgically the various periodontal diseases.

Attitude:

- Periodontal surgical care is to be delivered irrespective of the social status, caste, creed or religion of the patient.
- Willing to share the knowledge and clinical experience with professional colleagues.
- Respect patient right and privileges, including patients right to information and right to seek a second opinion.

- Develop attitude to seek opinion from an allied medical and dental specialists as and when required.

Communicative Skills and Ability:

- Develop adequate communication skills particularly with the patients giving them the various options available to manage a particular periodontal problem and obtain a true informed consent from them for the most appropriate treatment available at that point of time.
- Develop the ability to communicate with professional colleagues.
- Develop ability to teach undergraduates, present seminars and develop leadership skills

Teaching Hours: Theory: 80 Hours (III BDS-30 Hours, IVBDS- 50 Hours)

Sl. No.	Topic	Expected to know	Hours
1.	Introduction	Definition of Periodontology, Periodontics Periodontia. Brief historical background Scope of Periodontics	1
2.	Gingiva	Development , Structure , morphology histopathology of gingival tissues, functions.	2
3.	Tooth supporting structures	Periodontal ligament, cementum and alveolar bone: functions, histology, development	2
4.	Periodontal instrumentation	Sonic, Ultra sonic instrumentation gingival irrigation manual instrumentation	1
5.	Defense mechanism in the oral cavity	Role of Epithelium; Gingival crevicular fluid ; Saliva and other defensive mechanisms in the Oral environment	2
6.	Age changes in periodontal structures & their significance in geriatric dentistry	Age changes in teeth and Periodontal Structures, their association	1
7.	Plaque control	a. Mechanical- tooth brushes, interdental cleansing aids, dentifrices. b. Chemical – Classification and mechanism of action of each, pocket irrigation.	2
8.	Gingivitis	Plaque associated, ANUG ,steroid, hormone influenced, Medication influenced, desquamative gingivitis, gingivitis, other forms of gingivitis as in nutritional deficiency, bacterial and viral infections etc.	2



9.	Chemotherapeutic agents	Various chemotherapeutic agents used in periodontal therapy	1
10.	Gingival Diseases	Localised & generalize diseases gingivitis. Papillary, marginal and diffused gingivitis. Etiology, pathogenesis clinical signs, symptoms and management of-Plaque-associated gingivitis Systemically aggravated gingivitis (Sex hormones,Drugs and systemic diseases) Necrotizing ulcerative gingivitis Desquamative gingivitis associated with Lichen planus, Pemphigoid pemphigus and other Vesic ulob ullous lesions.Allergic gingivitis Infective gingivitis - Herpetic, bacterial and candidial, pericoronitis. Gingival diseases in childhood	2
11.	Gingival enlargement	Types of Gingival enlargement (Classification and differential diagnosis)	2
12.	Epidemiology of Periodontal disease	Definition of index, Incidence, Prevalence. Classification of indices.(Irreversible & reversible) Deficiencies of earlier indices used in Periodontics Detailed understanding of Sillness & Loe Plaque index, Loe and Sillness gingival index, CPITN & CPI.Prevalence of periodontal diseases in India and ther countries. Public Health significance (All these topics are covered at under community dentistry. Hence the topics may be discussed briefly however; questions may be asked from the topics for examination).	2
13.	Extension of inflammation from gingiva	Mechanism of spread of Inflammation from Gingival to deeper periodontal structures. Factors that modify the spread	1
14.	AIDS and periodontium	AIDS and periodontium	1

15.	Etiology of Periodontal diseases	Dental Plaque (Biofilm) Definition, Types, composition ; Formation: Bacterial colonisation, Growth & maturation, Disclosing agents. Role Of dental plaque in Periodontal disease Plaque microorganisms in detail Bacteria associated with periodontal diseases. Plaque retentive factors, Materia alba, Food debris, Food impaction: Definition, Types, Etiology Hirschfelds classification, Signs, symptoms & sequelae. Treatment.	2
16.	Calculus	Role of Dental calculus in disease. Definition, Types, composition, attachment, theories of formation	1
17.	Dentinal hypersensitivity	Causes, theories and management.	1
18.	Habits	- Their Periodontal significance. Bruxism & parafunctional habits, Tongue thrusting, mouth breathing, lip biting, occupational habits.	1
19.	Iatrogenic factors.	Conservative Dentistry- Restorations. Contact point, marginal ridge, surface roughness, overhanging restorations, interface between restoration and teeth . Prosthodontic Interrelationship- Bridges and other prosthesis, Pontics (types), surface contour, relationship of margins to the Periodontium . Orthodontics - Interrelation- Retention of plaque, bacterial changes.	1
20.	Systemic diseases	Diabetes, Sex hormones, Nutrition (Vitamins & Proteins) Hemorrhagic disease, Leukemia, Clotting factor disorder. Platelet disorders. PMN disorders	2

Tutorial (During Clinical Posting)

1. Infection control
2. Periodontal instruments
3. Chair position and principles of instrumentation , Maintenance of instruments
4. Basic tissues: Gingiva, periodontal ligament, cementum, alveolar bone.
5. Plaque control: mechanical and chemical
6. Motivation of patient - oral hygiene instructions

Desirable to Know

1. Histochemistry of periodontal tissues
2. Masticatory apparatus and functions
3. Immunology- current concepts of host response
4. Applied periodontal microbiology
5. Advanced diagnostic techniques
6. Regeneration

Teaching Hours: Theory - 80 Hours III BDS - 30 Hours; IV BDS - 50 Hours

Clinical work and case discussion (III BDS & IV BDS)

25 Detailed Case History And Discussion	75 Hours
50 Oral Prophylaxis	150 Hours
Demonstration of all Surgical Procedures	30 Hours
Maintenance Therapy	30 Hours
Total	285 Hours

Recommended Books

Name of the Book & Title	Author	Edn.	Yr. of Publ	Publisher's Name and Place of Publication
Standard Book Carranza and Newman	Clinical Periodontology	10th	2007	SB saunders Company
Recommended Books Robert Genco. Henry. M.Goldman D.Walter Cohen	Contemporary Periodontics	6th	--	C.V.Mosby Company St. Louis
Jan Lindhe, T.Karring, N. P Lang.	Clinical Periodontology & Implant Dentistry	5th	1997	Munksgaard Copenhagen
Grant Strern. Listgarten	Periodontics	6th	1998	Mosby CBSn Publishers Indian Edition
S. P Ramfjord M. M. Ash.	Periodontology and Periodontics Modern Theory and Practice	--	1996	AITBS Publishers, India
T. ITO J. D. johnson	Colour Atlas of Periodontal Surgery	--		Mosby & Wolfe. U.S.A
Cohen	Atlas of Periodontal Surgery	--		C. V. Mosby Company U.S.A
Glickman	Manual of periodontal instruments		1990	W.B. Saunders and co
Wilson and Kornman	Fundamentals of periodontics	2cnd	2003	Quintessence publishing

IV BDS PERIODONTOLOGY

Teaching Hours: Theory: 50 Hours

Sl. No.	Topic	Expected to know	Hours
1.	Classification of periodontal diseases	Need and scientific basis, classification of gingival and periodontal diseases- world workshop 1999.	1
2.	Risk Factors	Definition, Risk factors for periodontal diseases. Smoking and periodontal diseases, Role of Stress factors	1
3.	Genetic factors	Genetic factors associated with periodontal disease	1
4.	Host Response	Mechanism of initiation & progression of Periodontal disease, Basic concepts , cells, Mast cells, Neutrophils, macrophages, Lymphocytes, Immunoglobulins, complement, Immune Mechanisms and Cytokines in brief. Stages in gingivitis - Initial, early established, advanced Periodontal disease activity continuous paradigm, random burst and asynchronous multiple burst hypothesis	2
5.	Furcation involvement	Furcation involvement Various Classifications, prognosis and management.	1
6.	Bone loss patterns	Bone loss and patterns of bone destruction in periodontal disease	1
7.	Diagnosis	Routine procedures, methods of probing types of probes. -case history Halitosis, Etiology and treatment.	2 1
8.	Radiographic aids	Radiographs aids in the diagnosis of periodontal diseases	1
9.	Advanced diagnostic aids	Advanced diagnostic aids - Their role in brief	1
10.	Prognosis	Definition, types, purpose and factors	1
11.	Treatment plan	Factors to be considered	1
12.	Rationale for periodontal therapy	Regeneration, Repair, Re-attachment, New attachment	1

13.	Periodontitis	Etiology, histopathology, clinical signs & symptoms, diagnosis and treatment of chronic periodontitis, aggressive periodontitis, refractory periodontitis, Necrotising ulcerative periodontitis Periodontal abscess- definition, classification, pathogenesis, differential diagnosis & treatment	3
14.	Periodontal pocket	Definition, signs and symptoms, classification, pathogenesis histopathology, root surface changes & contents of pocket.	1
15.	Periodontal treatment of medically compromised Patients	Different systemic conditions and their effects on the periodontium. Management of patients with the various systemic complications	2
16.	Periodontal therapy in the female patient	PDL changes associated with Puberty, Menopause, pregnancy, Oral contraceptives	1
17.	Periodontal therapy	General principles of periodontal therapy. Preparation of the patient for surgical therapy	1
18.	Pocket eradication	Scaling and root planing procedures Indications, Aims and Objectives. Armamentarium - and procedure Healing following root planing. Curettage and present concepts- Definition, Indication ; Aims and Objectives Procedures and healing Gingivectomy / Gingivoplasty including crown lengthening procedure-Definition Indication and contra indication Armamentarium, Procedure and healing.	3
19.	Flap Surgery	Definition of flap; Types of flap (Design of flap- papilla preservation) Pocket eradication, Indications, armamentarium, surgical procedure and healing	2
20.	Osseous surgery	Definition; Resective and additive osseous surgery (Osseous grafts, classification of grafts)-healing; other regenerative procedures root conditioning. Guided tissue regeneration.	2
21.	Mucogingival surgery	Definition; Mucogingival problems,, Etiology & Classification of gingival recession (P.D.Miller Jr. and Sullivan and Atkins) Indications, various mucogingival surgical procedures	2
22.	Occlusion	Occlusal evaluation and therapy	1

23.	Microsurgery	Periodontal Microsurgery in brief, Electrosurgery, cryosurgery	1
24.	Splints	Periodontal splints - purpose, classification-principles of splinting	1
25.	Trauma from Occlusion (TFO)	definition, types, histopathological changes, role in periodontal disease, measures of management	1
26.	Implants	Definition, Types, Scope, biomaterials used. Periodontal considerations such as implant-gingiva and implant-bone interface. Implant failure, Peri-implantitis and management. Advanced surgical techniques	3
27.	Periodontal medicine	PDL infection associated with various systemic Diseases.	1
28.	Host modulation therapy	Principles, Agents used	1
29.	Lasers	Lasers in periodontal therapy	1
30.	Supportive periodontal therapy	Definition, Rationale. Patient Classification Factors affecting S P T; Implant maintenance	1
31.	Pharmacotherapy	Periodontal dressings ; antibiotics and antiinflammatory drugs - local drug delivery	1
32.	Pulpo-periodontal Lesions	Pulpo-periodontal involvement - Routes of Spread of infection management	1
33.	Evidence based decision making	Assessing evidence, implementing evidence based decisions in clinical practice	1
34.	Patient management	Ethical, legal and practical issues in the management of periodontal patients	1



Tutorial (During Clinical Posting)

1. Third year tutorial topics
2. Diagnosis of periodontal disease
3. Determination of prognosis and treatment plan
4. Radiographic interpretation and lab investigation
5. Ultrasonic instrumentation
6. Principles of periodontal surgery
7. Periodontal surgical procedures and suturing techniques
8. Concepts of subgingival irrigation and LDD
9. Occlusion, correction & management
10. Splinting techniques in Periodontics

Desirable to Know

1. Immunology- current concepts of host response
2. Applied periodontal microbiology
3. Advanced diagnostic techniques
4. Regeneration
5. Application of microsurgery and LASERS in periodontics
6. Implants

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