

DR.M.G.R EDUCATIONAL & RESEARCH INSTITUTE UNIVERSITY
DEPARTMENT OF ORAL PATHOLOGY AND MICROBIOLOGY

Subject Code:	Subject Name : Oral Pathology And Microbiology		T / L/ ETL	L	T / S.Lr	P/ R						
	Prerequisite:		T									
L : Lecture T : Tutorial SLr : Supervised Learning P : Project R : Research C: Credits T/L/ETL : Theory/Lab/Embedded Theory and Lab.												
OBJECTIVE: At the end of Oral Pathology & Oral Microbiology course, the student should be able to comprehend – 1. The different types of pathological processes, which involves the oral cavity. 2. The manifestations of common diseases, their diagnosis & correlation with clinical pathological processes. 3. An understanding of the oral manifestations of systemic diseases should help in correlating with the systemic physical signs & laboratory findings. 4. The student should understand the underlying biological principles governing treatment of oral diseases. 5. The principles of certain basic aspects of Forensic Odontology.												
SKILLS 1. Microscopic study of common lesions affecting oral tissues through microscopic slides & projection slides. 2. Study of the disease process by surgical specimens. 3. Study of teeth anomalies/polymorphisms through tooth specimens & plaster casts. 4. Microscopic study of plaque pathogens. 5. Study of haematological preparations (blood films) of anaemias & leukemias. 6. Basic exercises in Forensic Odontology such as histological methods of age estimation and appearance of teeth in injuries.												
COURSE OUTCOMES (COs) : (3- 5)												
CO1	To understand the Clinical Disciplines And Methods Which Provide A Coherent Picture Of Anomalies, Lesions And Diseases Of The Teeth, Mouth And Jaws And Preventive Diagnostic And Therapeutic Aspects Of Dentistry.											
CO2	To understand the Nature, Identification, Confirmation And Management Of Diseases Affecting The Oral And Maxillofacial Regions											
CO3	To understand the different pathological processes involving the oral cavity & oral cavity involvement in systemic diseases to be brought out.											
CO4	To understand the basic concept of oral physiology, microbiology, biochemistry and oral immunology.											
CO5	To understand the principles of basic forensic odontology.											
Mapping of Course Outcomes with Program Outcomes (POs)												
COs/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	L	M	L	H	M	L	L	M	H	L	H	M
CO2	L	M	L	H	M	L	L	M	H	L	H	M
CO3	L	M	L	H	M	L	L	M	H	L	H	M
CO4	L	M	L	H	M	L	L	M	H	L	H	M
CO5	L	M	L	H	M	L	L	M	H	L	H	M
COs /PSOs	PSO1		PSO2		PSO3		PSO4					
CO1	H		M		L		L					
CO2	H		M		L		L					
CO3	H		M		L		L					
CO4	H		M		L		L					
CO5	H		M		L		L					
H/M/L indicates Strength of Correlation H- High, M- Medium, L-Low												

Category	Basic Sciences	Medical and Allied Health Science	Humanities and Social Sciences	Program Core	Program Electives	Open Electives	Practical / Project	Internships / Technical Skill	Soft Skills
	Approval				✓				

Revised B.D.S regulation 2007 approved by dental council of India.

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DEPARTMENT OF ORAL PATHOLOGY AND MICROBIOLOGY

UNIT 1: INTRODUCTION:A bird's eye view-different pathological processes-oral cavity -systemic diseases- Interrelationship-General Medicine & General Surgery & Oral pathology to be emphasized.

UNIT 2. Developmental disturbances-oral & paraoral- Hereditary, Familial mutation, Hormonal- Etiopathogenesis, clinical features, radiological features, histopathological features as appropriate-size, shape, number, structure & eruption of teeth & clinical significance of the anomalies-Forensic Odontology Developmental disturbances of jaws - size & shape of the jaws- oral & paraoral soft tissues - lip & palate - clefts, tongue, gingiva, mouth, salivary glands & face.

UNIT 3. Dental Caries: Etiopathogenesis, microbiology, clinical features, diagnosis, histopathology, immunology, prevention -dental caries & its sequelae.

UNIT 4. Pulp & Periapical Pathology & Osteomyelitis-Etiopathogenesis & interrelationship, clinical features, microbiology, histopathology & radiological features- pulp & periapical lesions & osteomyelitis-Sequelae of periapical abscess - summary of space infections, systemic complications & significance.

UNIT 5. Periodontal Diseases: Etiopathogenesis, microbiology, clinical features, histopathology & radiological features of gingivitis, gingival enlargements & periodontitis-immunological mechanisms of periodontal disease to be highlighted.

UNIT 6. Microbial infections of oral soft tissues- Microbiology, defense mechanisms-immunological aspects, oral manifestations, histopathology and laboratory diagnosis-common bacterial, viral & fungal infections-Bacterial: Tuberculosis, Syphilis, ANU- Cancrum Oris-Viral: Herpes Simplex, Varicella zoster, Measles, Mumps & HIV infection- Fungal: Candidal infection. Aphthous Ulcers.

UNIT 7. Common non- inflammatory diseases involving the jaws-Etiopathogenesis, clinical features, radiological & laboratory values in diagnosis-Fibrous dysplasia, Cherubism, Osteogenesis Imperfecta, Paget's disease, Cleidocranial dysplasia, Rickets, Achondroplasia, Marfan's syndrome & Down's syndrome.

UNIT 8. Diseases of TM Joint- Ankylosis, summary of different types of arthritis & other developmental malformations, traumatic injuries & myofascial pain dysfunction syndrome.

UNIT 9. Cysts of the Oral & Paraoral region-Classification, etiopathogenesis, clinical features, histopathology, laboratory & radiological features- Odontogenic cysts, Non-Odontogenic cysts, Pseudocysts of jaws & soft tissue cysts- oral & paraoral region.

UNIT 10. Tumours of the Oral Cavity -Classification of Odontogenic, Non-Odontogenic & Salivary Gland Tumours- Etiopathogenesis, clinical features, histopathology, radiological features & laboratory diagnosis common tumours :- Odontogenic - all lesions-Non-odontogenic Benign Epithelial-Papilloma-Keratoacanthoma & Naevi-Benign

Mesenchymal - Fibroma, Aggressive fibrous lesions, Lipoma,-Haemangioma,Lymphangioma, Neurofibroma, Schwannoma, Chondroma, Osteoma & Tori-Malignant Epithelial - Basal Cell Carcinoma, Verrucous Carcinoma,Squamous Cell carcinoma &Malignant Melanoma-Malignant Mesenchymal - Fibrosarcoma, Osteosarcoma, Giant cell tumour, Chondrosarcoma, Angiosarcoma, Kaposi's sarcoma, Lymphomas , Ewing's sarcoma-Other Reticuloendothelial tumours-Salivary Gland Benign Epithelial neoplasms - Pleomorphic Adenoma, Warthin's tumour, Oncocytoma-Malignant Epithelial neoplasms - Adenoid Cystic Carcinoma,-Mucoepidermoid Carcinoma,-Acinic Cell Carcinoma & Adenocarcinomas-Disputed Origin - Congenital Epulis & Granular Cell Myoblastoma.-Metastatic tumours - Tumors metastasizing- routes of metastasis.

UNIT 11. Traumatic, Reactive & Regressive lesions of Oral Cavity -Pyogenic & Giant cell granuloma, exostoses Fibrous Hyperplasia, Traumatic Ulcer & Traumatic Neuroma-Attrition, Abrasion, Erosion, Bruxism, Hypercementosis, Dentinal changes, Pulp calcifications &Resorption of teeth-Radiation effects of oral cavity, summary of Physical & Chemical injuries-Healing of Oral wounds & complications - Dry socket.

UNIT 12. Non neoplastic Salivary Gland Diseases-Sialolithiasis, Sialosis, Sialadenitis, Xerostomia & Ptyalism.

UNIT 13. Systemic Diseases involving Oral cavity- oral manifestations, diagnosis & significance of common Blood, Nutritional, Hormonal & Metabolic diseases of Oral cavity.

UNIT 14. Mucocutaneous Lesions- Etiopathogenesis, clinical features & histopathology-Lichen Planus, Lupus Erythematosus, Pemphigus & Pemphigoid lesions, Erythema Multiforme, Psoriasis, Scleroderma, Ectodermal Dysplasia, Epidermolysis bullosa & White sponge nevus..

UNIT 15. Diseases of the Nerves- Facial neuralgias - Trigeminal & Glossopharyngeal. VII nerve paralysis, Causalgia-Psychogenic facial pain & Burning mouth syndrome.

UNIT 16. Pigmentation of Oral & Paraoral region & Discolouration of teeth -causes & clinical manifestations.

UNIT 17. Diseases of Maxillary Sinus-Traumatic injuries to sinus, Sinusitis, Cysts & Tumours involving antrum.

UNIT 18. Oral Precancer – Cancer; Epidemiology, aetiology, clinical and histopathological features,-TNM classification. Recent advances in diagnosis, management and prevention- Biopsy : Types of biopsy, value of biopsy, cytology, histo chemistry & frozen sections in diagnosis of oral diseases.

UNIT 19. Principles of Basic Forensic Odontology- Introduction, definition, aims & scope-Sex and ethnic differences in tooth morphology-histological age estimation-Determination of sex & blood groups from buccal mucosa / saliva-Dental DNA methods Bite marks, rugae patterns & lip prints- Dental importance of poisons and corrosives-Overview of forensic medicine and toxicology.

TOTAL NUMBER OF HOURS: 120 HOURS

RECOMMENDED BOOKS

1. A Text Book of Oral Pathology - Shafer, Hine & Levy.
2. Oral Pathology - Clinical Pathologic correlations - Regezi & Sciubba.
3. Oral Pathology - Soames & Southam.
4. Oral Pathology in the Tropics - Prabhu,Wilson,Johnson & Daftary