

Oral Pathology and Microbiology

Course Overview

Oral Pathology and Oral Microbiology is a vital subject in the dental curriculum that bridges basic medical sciences with clinical dental practice. It focuses on the study of diseases affecting the oral and maxillofacial region, their causes, mechanisms, and microscopic features.

Duration

Academic Year: 3rd Year BDS

Total Hours: - Theory: 115 Hours - Practical/Clinical: 200 Hours

Course Objectives

- To identify and understand pathological changes in oral tissues.
- To study the microbiological and immunological basis of oral diseases.
- To develop diagnostic skills through microscopic examination of tissues.
- To gain knowledge about forensic aspects related to dentistry.

Syllabus Content

1. Developmental Disturbances - Teeth: Number, size, shape, structure, and eruption - Oral and maxillofacial structures: Lips, palate, tongue, jaws

2. Dental Caries - Etiology and microbiology - Pathogenesis and clinical types - Histopathology - Prevention and control

3. Pulp and Periapical Pathologies - Pulpitis, pulp degeneration - Apical periodontitis, abscess, granuloma, cyst

4. Oral Mucosal Lesions - Vesiculobullous diseases - Ulcerative, infectious, and pigmentary disorders - Allergic and drug-induced lesions

5. Salivary Gland Disorders - Developmental disorders - Inflammatory diseases - Neoplasms - Mucoceles and sialolithiasis

6. Cysts of the Oral and Maxillofacial Region - Odontogenic cysts: radicular, dentigerous, keratocyst - non-odontogenic cysts

- Cyst-like lesions

7. Odontogenic and Non-Odontogenic Tumors - Classification and examples - Clinical features and histology - Diagnosis and basic management principles

8. Oral Precancer and Cancer - Leukoplakia, erythroplakia - Oral submucous fibrosis - Squamous cell carcinoma - TNM staging

9. Forensic Odontology (Basics) - Age estimation - Bite mark analysis - Dental identification techniques

10. Laboratory Techniques and Histopathology - Biopsy procedures - Tissue processing and staining - Slide identification: Normal vs. Pathological

Teaching Methodology

- Lectures and audiovisual presentations
- Laboratory practicals and demonstrations
- Case discussions and histopathological slide reviews
- Student seminars and assignments

Assessment:

- **Internal Assessment:** Periodic tests, assignments, practicals
- **University Examination:** - Theory Paper (100 marks total) - Practical Exam (100 marks) - Viva Voce and Record Evaluation

Recommended Textbooks

- Shafer's Textbook of Oral Pathology
- Neville's Oral and Maxillofacial Pathology
- Harsh Mohan – Textbook of Pathology
- Ananthanarayan & Paniker – Textbook of Microbiology