



## **SRI SIDDHARTHA ACADEMY OF HIGHER EDUCATION**

*("Deemed to be University u/s 3 of the UGC Act, 1956")*

*Accredited 'A' Grade by NAAC*

**Agalakote, B.H. Road, Tumkur – 572 107. KARNATAKA, INDIA.**

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### **Syllabus For Ph.D In Dentistry**

- **Periodontology & Oral Implantology**
- **Conservative Dentistry and Endodontics**

## **TOPICS FOR PhD**

### **(CORE PAPER)**

#### **PERIODONTOLOGY & ORAL IMPLANTOLOGY**

**1. PERIODONTAL FLAP.**

(classification, indications & contraindications, flap design, different flap technique, suturing techniques, healing after flap surgery.)

**2. PERIODONTAL REGENERATION.**

(classification of various graft material, various regenerative & reconstructive techniques, properties of graft materials, non graft assisted reconstructive procedure, factors influencing therapeutic success , tissue engineering with various biologic mediators, enamel matrix derivatives, growth factors, future direction for periodontal regeneration such as BMP, cell therapy ,gene therapy, scaffolds...)

**3. PERIODONTAL PLASTIC & ESTHETIC SURGERY.**

(objectives of plastic surgery, etiology of marginal recession, techniques to increase attached gingival, techniques to treat gingival recession, techniques to deepen vestibule, techniques to remove frenum, techniques to improve esthetics, criteria for case selection and technique selection.)

**4. FURCATION INVOLVEMENT & TREATMENT.**

(diagnosis & classification of furcation defects, etiological factors, anatomical factors, indices of furcation leision, non surgical & surgical therapy, prognosis)

**5. TREATMENT OF GINGIVAL ENLARGEMENT.**

(classification, etiopathogenesis, treatment option surgical and non surgical for gingival enlargement)

#### 6. DIAGNOSIS & MANAGEMENT OF ENDO PERIO LEISION.

(anatomical consideration, factors initiating pulpal and peri apical diseases, biological effect of pulpal infection on periodontal tissue & vice versa, differential diagnosis, classification & treatment consideration of endo-perio lesion).

#### 7. SUFRGICAL ASPECTS OF DENTAL IMPLANTS.

(osseointegration, general principles of implant surgery, two staged vs one staged implant surgery, localized bone augmentation and implant site development, guided bone regeneration, localized ridge augmentation, advanced implant surgical procedures, maxillary sinus elevation & bone augmentation, immediate placement of implant in esthetic areas, vertical bone augmentation, growth factors in bone augmentation, piezoelectric bone surgery)

#### 8. PERIIMPLANT DISEASE & MANAGEMENT.

( implant survival & success, types of implant complication, prevalence of implant complication, biological complications, surgical & non surgical management of peri implant disease)

#### 9. CHEMOTHERAPEUTIC AGENTS IN PERIODONTAL THERAPY.

(systemic administration if antibiotics, local delivery agents, serial and combination antibiotic therapy, antimicrobial agents.)

#### 10.HOST MODULATION THERAPY.

(systemically administered agents, locally administered agents, sub anti microbial dose of doxycycline, emerging host modulatory therapies).

#### 11.PERIODONTAL MEDICINE.

(focal infection theory, evidence based clinical practice, periodontal disease and mortality, periodontal disease and CHD, stroke, diabetes mellitus, respiratory disease , PTLB)

#### 12.PERIODONTAL POCKET.

(classification, clinical features, pathogenesis, histopathology, pulp changes with pocket, relationship of attachment loss and bone loss, area between base of the pocket and alveolar bone)

#### 13.BONE LOSS & PATTERN OF BONE LOSS.

( bone destruction caused by extension of gingival inflammation, bone destruction caused by TFO & systemic disorder, factor determining bone morphology, various bone loss pattern).

#### 14.TRAUMA FROM OCCLUSION.

(adaptive capacity of periodontium to occlusal forces, stages of tissue response to occlusal forces, effect of insufficient occlusal forces, reversibility of TFO, effect of TFO on dental pulp, influence of TFO ON marginal recession, pathological tooth migration).

#### 15.CHRONIC & AGGRESSIVE PERIODONTITIS.

( clinical features ,general characteristic, staging & grading, disease distribution, disease severity, diagnosis, pathobiology & risk factors, diagnosis and treatment)

# **TOPICS FOR PhD (Core Paper) CONSERVATIVE DENTISTRY AND ENDODONTICS**

## **DENTIN AND PULP COMPLEX**

- Types of dentin
- Functions of pulp
- The normal pulp
- Zones of pulp
- Histology Of Pulp
- Blood vessels of pulp and circulation
- Aging of pulp

## **ENDODONTIC MICROBIOLOGY**

- Bacterial Pathways into the Pulp
- Sequelae of Microbial Infection
- Endodontic Microbiota
- Classification of Endodontic Infections
- Biofilms
- Methods of microbial identification

## **DENTAL CARIES**

- recent concept of etiological factors,
- pathophysiology
- diagnosis
- caries activity tests,
- prevention of dental caries and management

## **MANAGEMENT OF NON-CARIOUS LESION.**

- Attrition
- Abrasion
- Erosion
- Dentinal Hypersensitivity

## **DIAGNOSTIC PROCEDURE**

- History And Record
- Subjective symptoms
- Objective Symptoms
- Radiography in endodontics
- Pulp vitality

## **INFECTION CONTROL PROCEDURES USED IN ENDODONTICS**

- Isolation
- Rubber dam
- Sterilization of instruments

## LOCAL ANESTHESIA IN ENDODONTICS

- Mechanism of action
- Classification
- Complications

## VITAL PULP THERAPY AND APEXIFICATION

- Materials Used for Vital Pulp Therapy
- Vital Pulp Therapy
- Clinical Management of Pulpal Exposure in Cases with Reversible Pulpitis
- Apexification

## ANATOMY OF PULP CAVITY AND ITS ACCESS OPENING

- Pulp Space, Pulp Chamber, Root Canals, Isthmus, Apical Foramen, Lateral Canals and Accessory Foramina
- Clinical Guidelines for Access Cavity Preparation

## PROCEDURAL ERRORS: PREVENTION AND MANAGEMENT .

- Clinical Guidelines
- Types of Procedural Errors

## ENDODONTIC EMERGENCIES

- Classification
- Endodontic Emergencies Presenting Before Treatment
- Endodontic Emergencies During Treatment
- Endodontic Emergencies After Treatment
- Clinical Management of Endodontic Emergencies

## ENDODONTIC–PERIODONTIC INTERRELATIONSHIP

- Pulpoperiodontal Pathways
- Etiology of Endo–Perio Lesions
- Classification
- Sequence of Treatment

## PROSTHODONTIC CONSIDERATIONS IN ENDODONTICALLY TREATED TEETH

- Anatomical, biological, and mechanical considerations in restoring endodontically treated teeth
- Factors determining post selection

## ENDODONTIC SURGERY

- Objectives, rationale, indications and contraindications of endodontic surgery
- Treatment Planning and Presurgical Notes for Periradicular Surgery
- Soft-Tissue and Hard-Tissue Considerations in endodontic surgery
- Evidence based dentistry