

PERIODONTAL POCKET

Pocket is defined as "Pathological deepening of the gingival sulcus". Deepening of gingiva sulcus may occur by coronal movement of the gingiva margin, apical displacement of gingiva attachment or combination of above.

CLASSIFICATION:

1. Depending on the Morphology:

- a. Gingival/False/ Relative Pocket\
- b. Periodontal/True Pocket
- c. Combined Pocket

2. Depending upon its relationship to crestal bone :

- a. Suprabony / Supracrestal / Supraalveolar pocket
- b. Infrabony / Intrabony / Subcrestal / Intraalveolar

3. Depending upon the number of surfaces involved:

- a. Simple Pocket (Involving one tooth surface)
- b. Compound Pocket (Involving two or more teeth surfaces)
- c. Complex Pocket (Base of the pocket is not in direct communication with the gingival margin. Also called Spiral Pocket)

4. Depending upon the nature of soft tissue wall of the pocket:

- a. Edematous Pocket
- b. Fibrotic Pocket



5. Depending upon the disease activity:

- a. Active Pocket
- b. Inactive Pocket



CLINICAL FEATURES:

SIGNS

- Enlarged, Bluish discolouration seen on the marginal gingiva which has a rolled edge
- Presence of a bluish-red vertical zone extending from the gingival margin to the alveolar mucosa
- Shiny, discoloured & puffy gingiva
- Exposed root surfaces
- Gingival bleeding'
- Purulent exudate from the margin
- Mobility, extrusion & migration of teeth
- Midline Diastema

SYMPTOMS

- Localized pain or sensation of pressure in the gingiva after eating
- Tendency to suck material from interproximal spaces
- Foul taste
- Gnawing or itching in the gums
- Radiating pain in the Bone



- Sensitivity to heat & cold
- Toothache in the absence of caries

PATHOGENESIS OF PERIODONTAL POCKET

Changes in the Junctional Epithelium

Finger-like Projections (Proliferates along the surface of the root)

Coronal portion detaches from the root

Apical portion of the Junctional Epithelium migrates

Replaced by Pocket Epithelium

Aggressive growth and action of gram-negative bacteria

Emigration of neutrophils in large numbers

Disruption of epithelial barrier causing open communication

Loss of chemotactic gradient

Tissue destruction due to products released by neutrophils as well as bacteria

Resorption of alveolar bone

Periodontal pocket is established



DIAGNOSIS OF PERIODONTAL POCKET:

CLINICAL METHODS:

- Presence of Bleeding on Probing
- ➤ Acute Periodontal Abscess
- > Deep pockets with CAL
- > Increased gingival temperature

RADIOGRAPHIC METHODS:

- Digital Subtraction radiography
- > CADIA (Computer assisted densitometric image analysis

MICROBIOLOGICAL TESTS:

- > DNA Probes
- Bacterial Culture
- ➤ Immunodiagnostic Assays

TREATMENT:

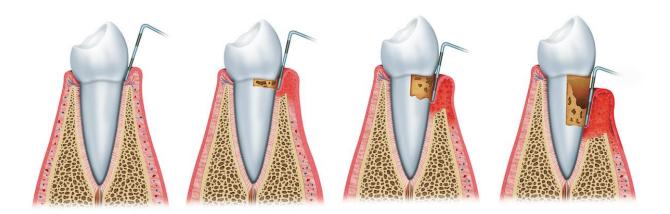
- ♣ New Attachment Techniques
- Scaling & Root Planing
- ♣ Gingivectomy / Undisplaced flap
- ♣ Apical Displacement of Flap
- **♣** Tooth Extraction
- ♣ Hemisection / Root Resection

NOTE : The treatment protocol depends upon the type of pocket. Re-evaluation & Maintenance should be carried out on a regular basis





Periodontal Pocket



Removal of Pocket Wall by Debridement & Curettage