


# Periodontal Abscess

Dr. Sachin Bhagat

MDS

- 
- \* **Definition :** Abscess is a localized purulent inflammation of the periodontal tissues.

# Classification based on location

## Types of Dental Abscess

Periapical



It forms at the root tip.

Gingival



It forms in the space between the gum and tooth.

Periodontal



It forms in a periodontal pocket.

Pericoronal



It forms around impacted or partially erupted tooth.

# Classified :3 diagnostic groups

- \* **Gingival Abscess:** Involves marginal gingiva and interdental tissues
- \* **Periodontal Abscess:** Is an infection located contiguous to periodontal pockets and may result in destruction of Periodontal ligament and alveolar bone.
- \* **Pericoronary Abscess :** associated with the crown of a partially erupted tooth.

# Gingival Abscess

- \* Localized
- \* Marginal gingiva
- \* Acute inflammatory lesion
- \* Microbial plaque infection
- \* Trauma
- \* Foreign body impaction

Red ,Smooth ,painful often fluctuant swelling

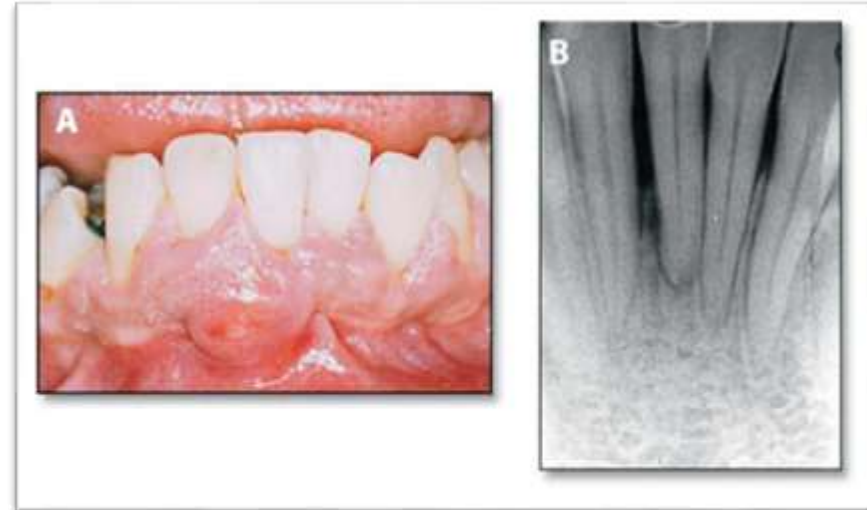


# Periodontal Abscess

## Causes:

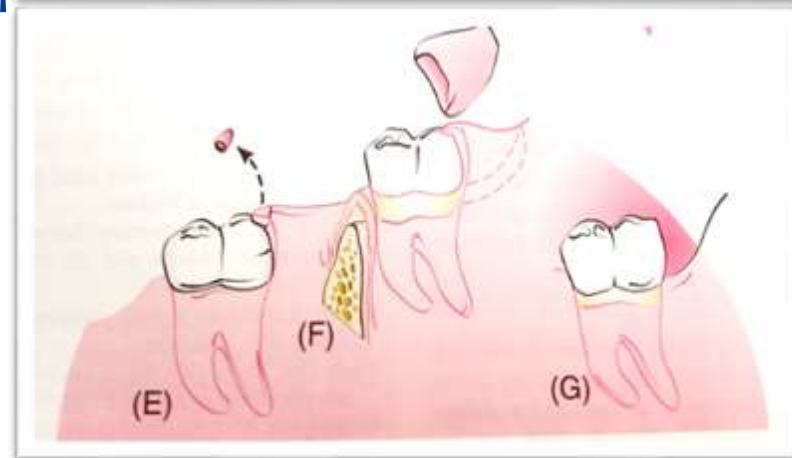
- \* Typically found in patients with untreated periodontitis with moderate to deep perio. Pkts
- \* Incomplete calculus removal
- \* Sometimes in patients after periodontal surgery
- \*
- \* Poorly controlled diabetes mellitus- predisposing factor

**Major cause of tooth loss-formation of Periodontal abscess**



# Pericoronal Abscess

- \* Inflammation of soft tissue operculum covering partially erupted tooth
- \* Mandibular 3<sup>rd</sup> molar
- \* Caused by retention of Microbial plaque
- \* Food Impaction
- \* Trauma



Operculectomy

# Abscess

- \* Acute
- \* Chronic

- \* Acute

- Exacerbation of a chronic inflammatory perio lesion

- Influenced by : increase number and virulence of bacteria

- Decrease tissue response

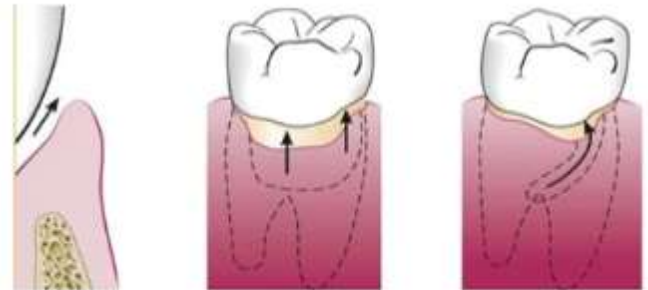
- Lack of Spontaneous drainage

# Lack of Spontaneous drainage is prevented by

- \* Deep tortuous pocket morphology
- \* Debris
- \* Closely adapted pocket epithelium blocking the pocket orifice

## **Etiology of periodontal abscess**

The existence of **tortuous** pockets (with cul-de-sac) which eventually become isolated, may favor the formation of abscess.



# Signs and Symptoms

- \* Mild to severe discomfort
- \* Localized red, ovoid swelling
- \* Periodontal pocket
- \* Mobility Tooth elevated in the socket
- \* Tenderness to percussion or biting
- \* Elevated temperature
- \* Regional lymphadenopathy
- \* Exudate expressed by gentle pressure



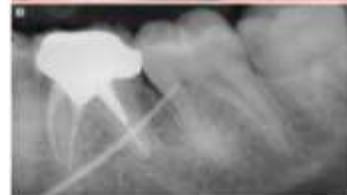
# Chronic

- \* Forms after treatment, spreading infection controlled by spontaneous drainage.

## Signs and Symptoms:

- \* No pain or dull pain
- \* Localized inflammatory lesion
- \* Slight tooth elevation
- \* Intermittent exudation
- \* Fistulous tract often associated with a deep pocket
- \* Usually with out systemic involvement

- The termination of the G.P cone shows the path taken by the sinus tract from the opening to the source.



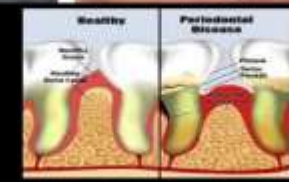
# D/D of Periodontal and Pulpal Abscess

## \* **Periodontal Abscess**

- Associated with preexisting periodontal pockets
- Radiographs show angular bone loss and furcation radiolucency.
- Tests show vital pulp
- Swelling usually includes gingival tissue, with occasional fistula
- Pain usually dull and localized
- Sensitivity to percussion may or may not be present

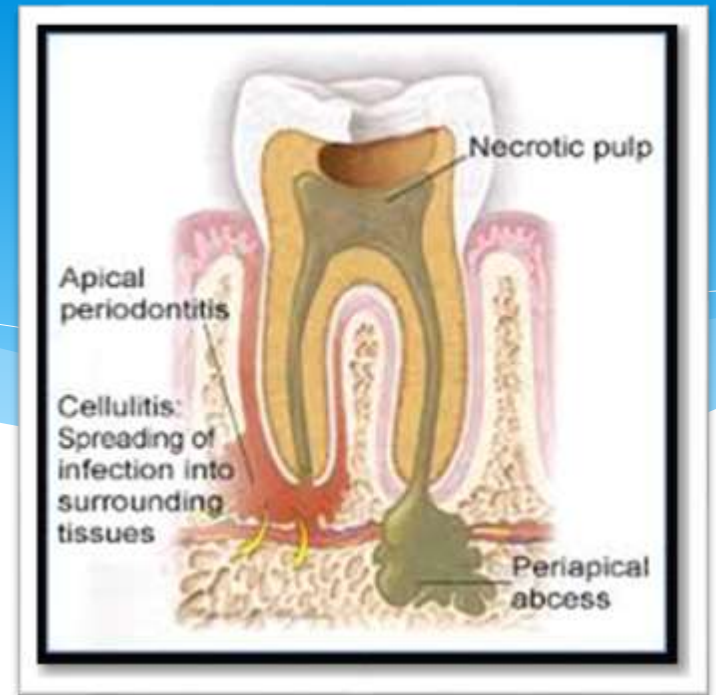


Periodontal Abscess



## \* **Pulpal Abscess**

- Offending tooth may have large restoration.
- May have no periodontal pocket, or if present, probes as a narrow defect
- Tests shows non vital pulp
- Swelling often localized to apex ,with a fistulous tract
- Pain often severe and difficult to localize
- Sensitivity to percussion



# Periodontal Vs. Periapical Abscess

## ■ Periodontal Abscess

- Vital tooth
- No caries
- Pocket
- Lateral radiolucency
- Mobility
- Percussion sensitivity variable
- Sinus tract opens via keratinized gingiva

## ■ Periapical Abscess

- Non-vital tooth
- Caries
- No pocket
- Apical radiolucency
- No or minimal mobility
- Percussion sensitivity
- Sinus tract opens via alveolar mucosa

# Treatment Options for Periodontal Abscess

1. Drainage through pocket retraction or incision
2. Scaling and root planning
3. Periodontal surgery
4. Systemic Antibiotics
5. Tooth removal



# Indications for Antibiotic Therapy in patients with Acute Abscess

- \* Cellulitis (non localized, spreading infection)
- \* Deep inaccessible pocket
- \* Fever
- \* Regional Lymphadenopathy
- \* Immunocompromised patients

# Antibiotic Options for Periodontal treatment

- \* Antibiotic of Choice

- Amoxicillin 500mg

- \* 1.0-g loading dose then 500 mg three times a day for 3 days

- \* Reevaluation after 3 days to determine need for continued or adjusted antibiotic therapy



- \* Penicillin Allergy

- Clindamycin

- \* 600mg loading dose then 300 mg four times a day for 3 days

- Azithromycin (or Clarithromycin )

- \* 1.0 g loading dose, then 500mg once a day for 3 days

# Treatment Modalities

- \* **Acute Abscess**

- Drainage through Periodontal Pocket
- Drainage through External Incision

- \* **Chronic Abscess**

- Scaling and root planning
- Surgical therapy
- Antibiotic therapy may be indicated

- \* Gingival Abscess

- \* Pericoronal Abscess

*Pus from the periodonral abscess*



*Incision for an evacuation of the pus*



*Healing after periodontal abscess*



Thank you!

