 

**Oral Pathology**

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**Lecture 4 Pulp disease**

**Lec. 4 ORAL PATHOLOGY Dr. Muna**

***Pulp disease***

***Pulpitis* :** is the inflammation of the pulp and is the most common cause of dental pain and loss of teeth

***Causes of pulpitis***

1)dental caries which is the usual cause

2)traumatic exposure of the pulp

3)fracture of crown or cusp

4) thermal and chemical irritation

5) cracked tooth syndrome

Pulpitis if untreated is followed by death of the pulp , spread of infection through the apical foramen in to periapical

Area

**Pulpits is classified to**

1)acute closed pulpitis

2)chronic closed pulpitis

3)chronic open pulpitis

4) chronic hyperplastic (pulp polyp)

5)pulp stones (pulp calcification)

***General characteristic feature of pulpitis***

1)early stage inflammation /acute pulpitis

2)tooth hyper sensitive to cold ,hot food

3) as inflammation progress ,pain become more persistent

4)spontaneous pain indicate acute irreversible pulpitis

5) pulp pain is poorly localized

6)chronic pulpits is often symptomless ,painless



***Periapical-periodontitis***

***Periapical- periodontiti***s is usually due to spread of infection following death the pulp.

Causes:

**1)infection**: A- spread from chronic infection of gingival margins B-sequence of caries ,pulpits ,death of pulp and periodontitis .

**2)trauma**: A-blow causing damage of the apical vessels B- High filling or biting suddenly on hard object

**3) chemical irritant :**

**A- irritant antiseptics used to sterilize root**

canal (escape through the apex )

**B-**root canal instrument or filling may also extend beyond the apex causing damage to periodontal tissue

***Cellulitis***

Rapidly spreading inflammation of soft tissue associated with streptococcal infection, not well localized, it is a complication of acute periodontitis ,formation of edema due to acute apical

periodontitis such as in acute periapical infection of canine

the buccal plate of the bone perforated causing edema of the face

***Changes and periapical pathology***

Bacterial causes→ non vital tooth ←nonbacterial caries cause

↓

Apical periodontitis

↙ ↘

1)acute -cellulitis 2) chronic

A-Chronic abscess(sinus)↙ ↓ ↘B-periapical granuloma

C-Radicular cyst

***Acute periapical periodontitis***

Clinical feature

1)history of pain due previous pulpits

2)extruded tooth and on the bite feel more heavily on it(the tooth tender to percussion )

3)hot ,cold substances do not causes pain in tooth

4)as inflammation becomes more sever, pus start to form, pain become intens and throbbing in character

5) the inflammation is confined within the bone ( no swelling )

***Chronic periapical periodontitis (periapical granuloma)***

**Clinical feature**

1)A low grade infection ,follow acute infection

2)tooth non vital, tender to percussion



**Radiological examination**

First show a widening of the periodontal ligament space around the apex and later a definite periapical radiolucency may develop.

**Possible complication of chronic apical periodontitis**

1-Granuloma :granulation tissue grows into around mass appear as a rounded area of radiolucency at the apex of tooth

in radiograph

2-Radicular cyst: epith. proliferation lead to cyst formation ,variable degree of proliferation of the epith. . rest of molasses in periapical granuloma at apex of dead tooth lead to jaw cyst,

lining with hyperplastic epith. and filled with fluid.

3-Sinus formation: pus may reach the surface by resorption of bone usually on buccal surface of gingiva at apex of tooth ,bone destruction ,tracking of a sinus on the skin surface

