



Classification Of Periodontal Diseases

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Topics

- ❖ Introduction
- ❖ Diseases of the gum
- ❖ Diseases of the attachment apparatus

Introduction

- ❖ 1880 - “Pyorrhoea alveolaris” - Gottlieb
- ❖ 1921 - “Periodontosis” - Weski
- ❖ 1935 - “Periodontopathy” - Weski
- ❖ The International Workshop for the Classification of Periodontal Disease and Conditions - AAP 1999 (Ann Periodontol 1999, 4:1-7.) - Periodontitis

Diseases of the gum

- ❖ dental plaque induced gingival diseases
- ❖ non-plaque induced gingival lesions



Diseases of the attachment apparatus

1. chronic periodontitis
2. aggressive periodontitis
3. periodontitis as a manifestation of systemic diseases
4. necrotising periodontal diseases
5. abscesses of the periodontium
6. periodontitis associated with endodontic lesions
7. developmental or acquired deformities and conditions

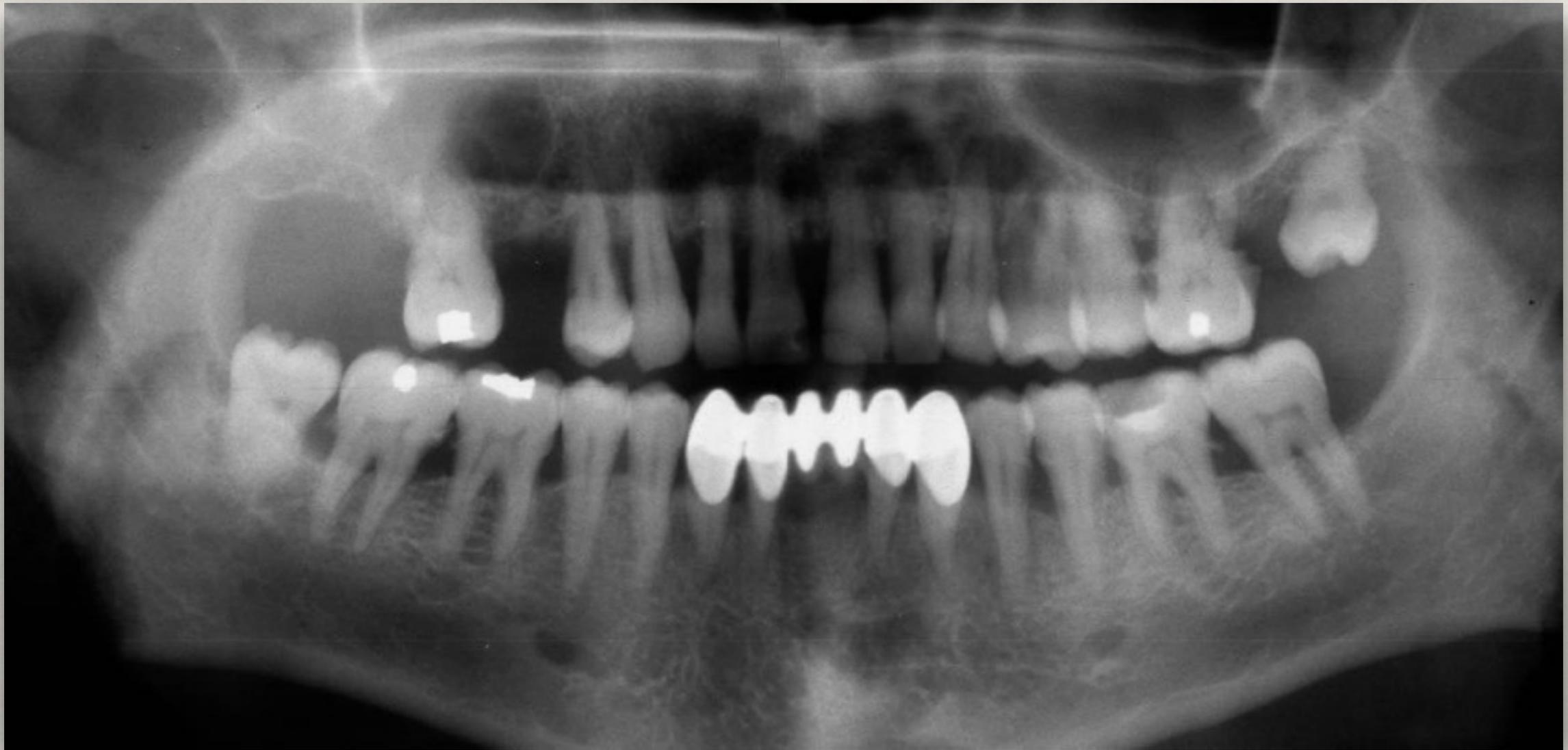
Chronic periodontitis

- ❖ untreated plaque-induced gingivitis may develop into chronic periodontitis
- ❖ loss of attachment and bone
- ❖ irreversible
- ❖ BOP
- ❖ increased probing depth, pockets
- ❖ recession of the gingival margin
- ❖ root furcation exposure
- ❖ increased tooth mobility
- ❖ drifting and eventually exfoliation of teeth



Overall characteristics of chronic periodontitis

- ❖ prevalent in adults
- ❖ poor oral hygiene habits, local predisposing factors, **smoking**, stress, systemic risk factors - PMN dysfunction, DM, genetics
- ❖ subgingival biofilm harbors a variety of bacterial species
- ❖ subgingival calculus
- ❖ rate of progression in most cases from slow to moderate
- ❖ localized when less than 30% of sites are affected
- ❖ generalized when this level is exceeded



Aggressive periodontitis

- ❖ before 1999 - “early onset periodontitis” (EOP), juvenile periodontitis
- ❖ group of rare, often severe, rapidly progressive forms of periodontitis
- ❖ under the age of 35
- ❖ rapid attachment loss and bone destruction
- ❖ familial aggregation of cases
- ❖ elevated proportions of *Aggregatibacter actinomycetemcomitans*, *Porphyromonas gingivalis*
- ❖ phagocyte abnormalities
- ❖ hyper-responsive macrophage phenotype, including elevated production of prostaglandin E2 (PGE2)

Aggressive periodontitis

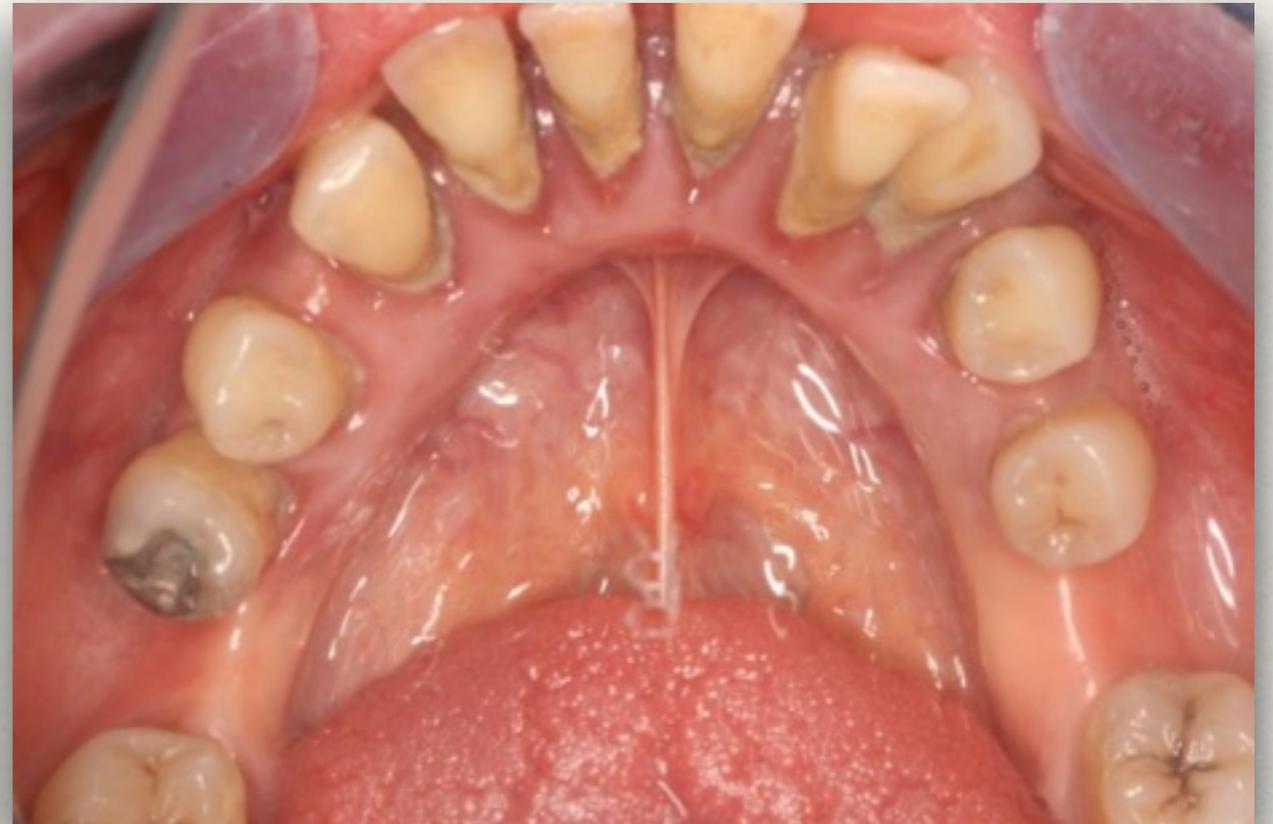
- ❖ Localized aggressive periodontitis:
- circumpubertal onset
- localized first molar / incisor presentation and involving no more than two other teeth
- robust serum antibody response to infecting agents
- higher prevalence for black subjects (2%)





Aggressive periodontitis

- ❖ Generalized aggressive periodontitis:
 - affecting persons under 30 years of age , or older
 - attachment loss affecting at least three permanent teeth other than first molars and incisors
 - poor serum antibody response to infecting agents





Periodontitis as a manifestation of systemic diseases

- ❖ associated with haematological disorders
- ❖ associated with genetic disorders
- ❖ not otherwise specific

Periodontitis as a manifestation of systemic diseases

❖ associated with haematological disorders

● acquired neutropenia

● leukemias

● others





Periodontitis as a manifestation of systemic diseases

❖ associated with genetic disorders

3. PERIODONTITIS AS A MANIFESTATION OF SYSTEMIC DISEASES

B. ASSOCIATED WITH GENETIC DISORDERS

1. Familial and cyclic neutropenia
2. Down syndrome
3. Leukocyte adhesion deficiency syndrome
4. Kostman's disease
5. Papillon-Lefèvre syndrome
6. Chediak-Higashi syndrome
7. Histiocytosis syndrome
8. Glycogen storage diseases
9. Infantile genetic agranulocytosis
10. Cohen syndrome
11. Ehlers-Danlos syndrome
12. Hypophosphatasia

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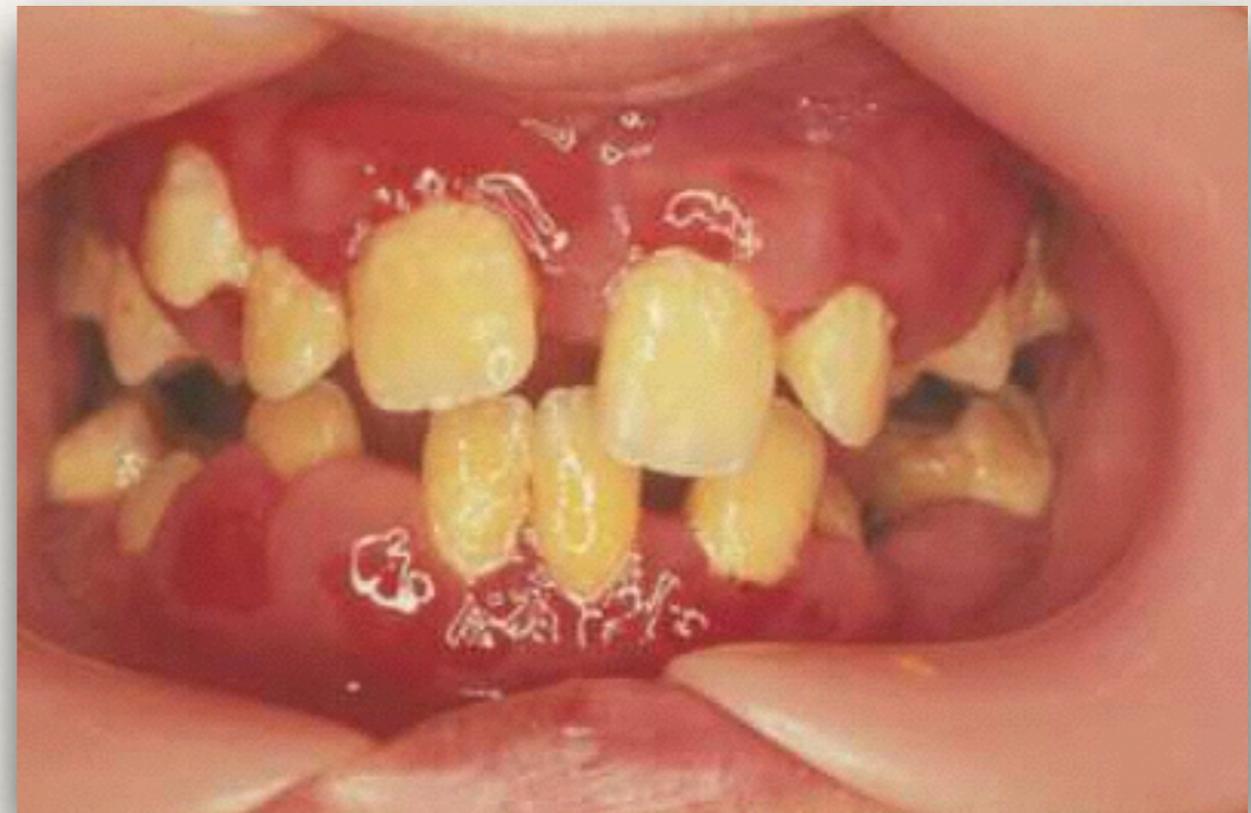
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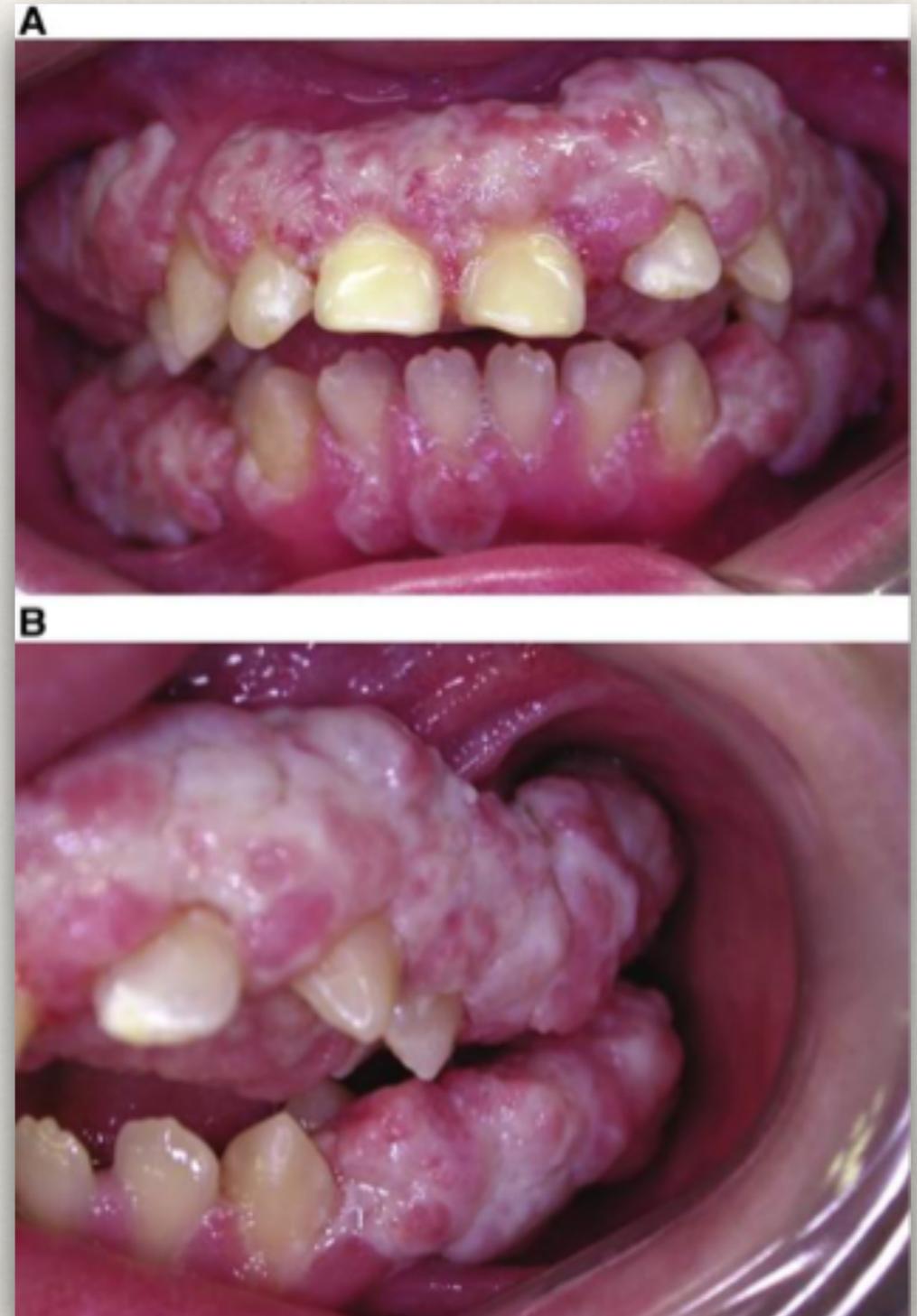
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Necrotising periodontal diseases

- ❖ necrotizing ulcerative gingivitis (NUG)
- ❖ necrotizing ulcerative periodontitis (NUP)

Necrotising periodontal diseases

- ❖ Necrotizing ulcerative gingivitis (NUG)

- plaque present at gingival margin
- disease begins at the interdental papilla
- ulceration on the interdental papilla
- spontaneous bleeding
- regional lymphadenopathy
- fever
- general malaise
- foetor ex ore



Necrotising periodontal diseases

- ❖ Predisposing factors for necrotizing ulcerative gingivitis (NUG) - (“trench mouth disease”)
- ❖ abundant plaque
- pre-existing gingivitis
- smoking
- psychological stress
- immunosuppression



Necrotising periodontal diseases

- ❖ Necrotizing ulcerative periodontitis (NUP) - sequestrum formation



Necrotising periodontal diseases

- ❖ Necrotizing ulcerative periodontitis (NUP)
- NOMA - necrotizing stomatitis



Abscesses of the periodontium

- ❖ gingival abscess
- ❖ periodontal abscess
- ❖ pericoronal abscess

Abscesses of the periodontium

- ❖ gingival abscess - caused by impaction of foreign bodies



Abscesses of the periodontium

- ❖ periodontal abscess
- exacerbation of a chronic lesion
- post-therapy periodontal abscess
- non-periodontitis related abscess
- prominent symptom: presence of an ovoid elevation of the gingival tissues along the lateral side of the root
- suppuration
- pain/sensitivity to percussion, mobility



Abscesses of the periodontium

- ❖ pericoronal abscess - at incompletely erupted teeth

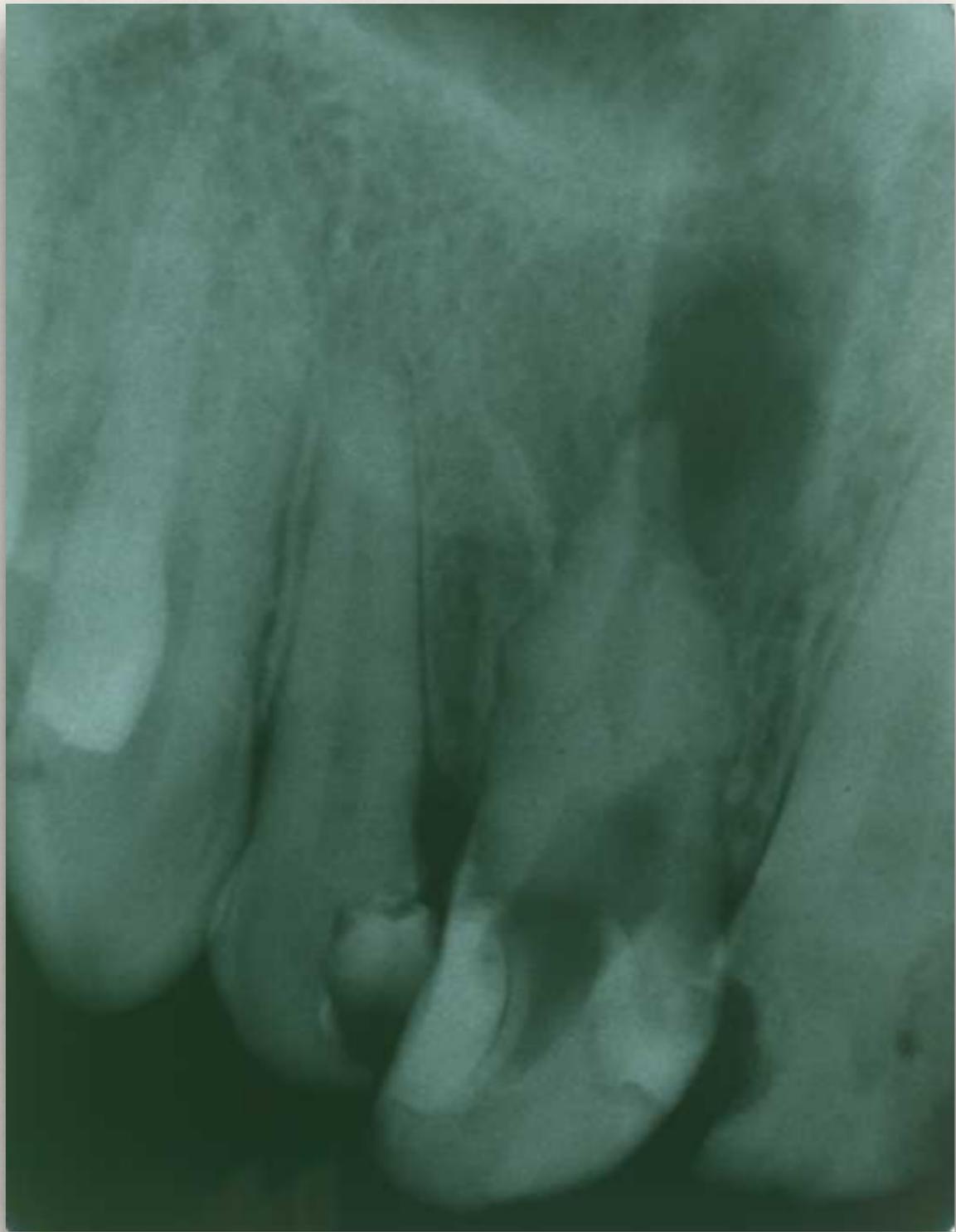


Periodontitis associated with endodontic lesions

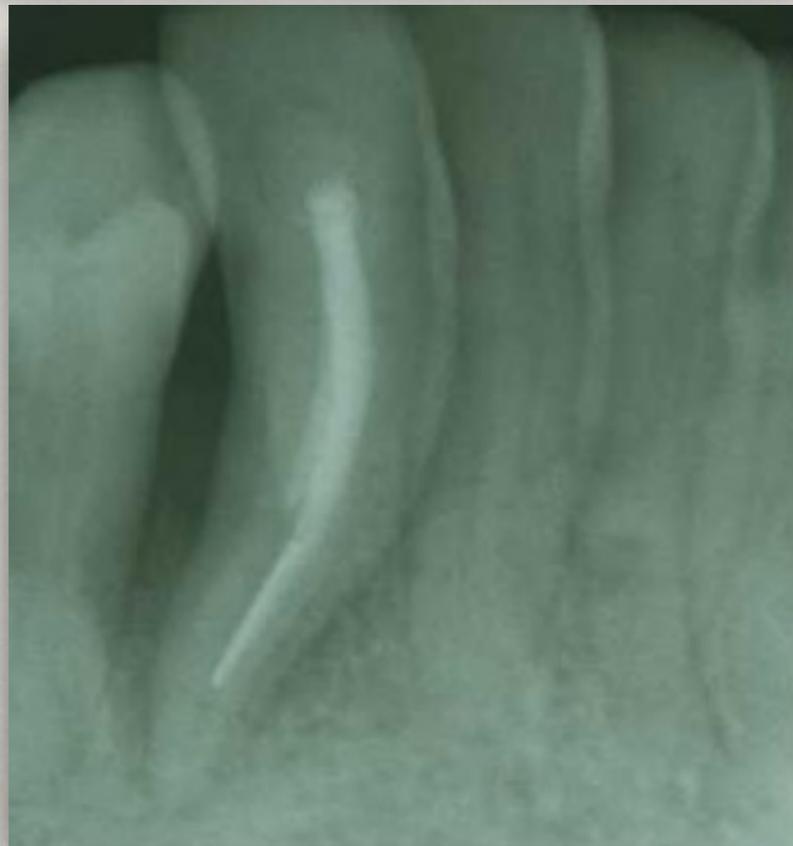
- ❖ Combined periodontic-endodontic lesions
- inflammatory processes of the periodontium associated with necrotic dental pulps have an infectious etiology similar to periodontal diseases
- different source of infection
- role of accessory canals (molars - furcation involvement)
- the vital function of the pulp are rarely threatened by periodontal disease influences











Developmental or acquired deformities and conditions

1. Localized tooth-related factors that modify or predispose to plaque-induced gingival / periodontal diseases
2. Mucogingival deformities and conditions around teeth
3. Mucogingival deformities and conditions on edentulous ridges
4. Occlusal trauma

Developmental or acquired deformities and conditions

1. Localized tooth-related factors that modify or predispose to plaque-induced gingival/periodontal diseases

- tooth anatomic factors
- dental restorations / appliances
- root fractures
- cervical root resorption





Developmental or acquired deformities and conditions

2. Mucogingival deformities and conditions around teeth

- gingival recession (buccal and lingual)
- gingival recession (interproximal)
- lack of keratinized gingiva
- decreased vestibular depth
- aberrant frenulum / muscle position
- gingival excess: pseudopocket, inconsistent gingival margin, gingival enlargement
- abnormal gingival color



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Developmental or acquired deformities and conditions

- ❖ Mucogingival deformities and conditions on edentulous ridges
 - vertical and horizontal ridge deficiency
 - lack of keratinized tissue
 - gingival enlargement
 - aberrant frenulum / muscle position
 - decreased vestibular depth
 - abnormal color



Developmental or acquired deformities and conditions

- ❖ Occlusal trauma
- primary occlusal trauma - a tissue reaction around a tooth with normal height of the periodontium
- secondary occlusal trauma - occlusal forces cause injury in a periodontium of reduced height



Developmental or acquired deformities and conditions

❖ Occlusal trauma

- trauma from occlusion cannot induce periodontal tissue breakdown
- trauma result in resorption of alveolar bone , leading to increased tooth mobility
- physiologic adaptation of the periodontal ligament and surrounding alveolar bone to the traumatizing forces

