Acute periodontal conditions

- Rapid onset and rapid course
- Accompanied by pain and discomfort
- May be unrelated to existing gingivitis or periodontitis

Periodontal Abscess

- Pain that is constant and localized
- Circumscribed swelling in the periodontium
- Possible increase in tooth mobility
- Radiographic loss of alveolar bone not involving the tooth apex
- Tooth has a vital pulp

Causes of periodontal abscess

- Blockage of existing periodontal pocket
- Foreign object forced into a tooth’s supporting tissues
- Incomplete calculus removal in a periodontal pocket

Abscesses of periodontal origin vs pulpal origin

- Periodontal Abscess
  - Vital Pulp
  - Bone loss present
  - Localized, constant pain

- Endodontic Abscess
  - Usually nonvital pulp
  - Bone loss at root apex
  - Difficult to localize, intermittent pain
  - Can be caused by death of the pulp from trauma or deep dental decay
  - Usually requires root canal treatment or extraction
Types of abscesses of the Periodontium

- **Gingival Abscess**
  - Primarily limited to the gingival margin or interdental papilla
  - Can occur in a previously periodontally healthy mouth when some foreign object is forced into a healthy gingival sulcus

- **Periodontal Abscess**
  - Affects deeper structures of periodontium
  - Usually occurs in a site with preexisting peri-oral disease
  - Not limited to gingiva

- **Pericoronal Abscess**
  - Soft tissue surrounding the tooth covers part of the occlusal surface
  - Typically 3rd molars
  - Possible Trismus

Treatment of a Gingival or Periodontal Abscess

- Administer Local Anesthesia
- Drain pus
- Thorough periodontal instrumentation
- Adjust occlusion if needed
- Prescribe antibiotics if needed
- Recommend warm saline rinses
- Prescribe pain medication if needed
- Follow-up appointments

Treatment of Pericoronal Abscess

- Administer local Anesthesia
- Drain pus
- Thorough periodontal instrumentation
- Irrigate under operculum
- Prescribe antibiotics if needed
- Recommend warm saline rinses
- Prescribe pain meds if needed
- Establish follow-up appt

Periodontitis

- **3 Forms of Periodontitis**
  - Chronic
  - Aggressive
  - Other

- Other Forms of Periodontitis
  - Manifestation of systemic diseases
  - Necrotizing Periodontal Diseases
  - Developmental or acquired deformities and conditions

Hematologic Disorders that affect the periodontium

- **Acquired Neutropenia**
  - Blood disorder characterized by abnormally low level of neutrophils (PMNs) in the blood
  - Numerous causes (can be genetic, related to viral infection, or occur after chemotherapy/radiotherapy)
  - Lowers immunologic barrier to bacterial and fungal infection
  - May lead to severe periodontal destruction

Hematologic Disorders that affect the periodontium

- **Leukemia**
  - Cancer that begins in blood cells, characterized by a large number of abnormal white blood cells that do not function properly
  - Gingival enlargement, bleeding, and infections
Aids/hiv infection

- Linear gingival erythema (LGE) and Necrotizing periodontal diseases (NPD) are the most common related periodontal conditions

Genetic disorders related to periodontal conditions

- Familial and Cyclic Neutropenia-severe periodontal destruction starting at an early age
- Down Syndrome-severe, aggressive periodontitis; substantial plaque accumulation; deep periodontal pockets; extensive gingival inflammation

Genetic disorders related to periodontal conditions

- Leukocyte Adhesion Deficiency (LAD) Syndromes
  - defective leukocyte chemotaxis
  - recurrent bacterial infections and impaired wound healing
  - Cases of periodontal disease attributed to LAD are rare but are associated with rapid attachment loss and early tooth loss starting with primary dentition
- Papillon-Lefevre Syndrome
  - Causes severe bone loss and early exfoliation of teeth starting with primary teeth
  - Usually edentulous by age 15
  - Hyperkeratosis of palms of hands and soles of feet

Genetic disorders related to periodontal conditions

- Chediak-Higashi Syndrome
  - Affects immune and nervous systems
  - Pale-colored hair, eyes, and skin
  - Aggressive periodontitis
- Glycogen Storage Disease
  - Characterized by neutropenia
  - Affects periodontal health from young age; early tooth loss
- Infantile Genetic Agranulocytosis (Kostmann syndrome)
  - Severe chronic neutropenia
  - Severe periodontal disease

Genetic disorders related to periodontal conditions

- Cohen Syndrome
  - Neutropenia, developmental delay, mental retardation, small head size, and weak muscle tone
  - Increased susceptibility to early periodontal breakdown
- Ehlers-Danlos Syndrome (Types IV and VIII)
  - Affects connective tissue, easy bruising, joint hypermobility, skin laxity, weakness of tissues
  - Early-onset generalized periodontitis, early loss of teeth
- Hypophosphatasia
  - Disorder of bone mineralization, resembles rickets
  - Severe loss of alveolar bone, early loss of teeth (especially anterior teeth)
Necrotizing Periodontal Diseases

- Inflammatory destructive infection of periodontal tissues that involve tissue necrosis
- Painful infections with ulceration, swelling, and sloughing off of dead epithelial tissue from the gingiva
- Necrotizing Ulcerative Gingivitis (NUG)
- Necrotizing Ulcerative Periodontitis (NUP)
- Other names include: trench mouth, Vincent infection, acute ulcerative necrotizing gingivitis (ANUG), necrotizing ulcerative gingivostomatitis

Necrotizing ulcerative gingivitis

- Sudden onset
- Pain
- Necrosis of interdental papilla
- Yellowish white or grayish tissue slough
- Fiery red gingiva with spontaneous bleeding

Necrotizing Ulcerative Periodontitis

- Same signs and symptoms as NUG
- Attachment loss affecting gingival tissues, periodontal ligament, and alveolar bone
- Extremely rapid and destructive, can produce loss of periodontal attachment within days

Predisposing factors for NPD

- Systemic Diseases including HIV, leukemia, measles, chicken pox, TB, herpetic gingivostomatitis, malaria
- Poor self-care
- Stress
- Fatigue
- Alcohol use
- Caucasain
- Smoking
- Poor Nutrition
- Preexisting gingivitis or tissue trauma
- Young age

Treatment steps for a patient with nUG

- 1st Appt
  - Pseudomembrane should be removed carefully
  - Supragingival periodontal instrumentation, limited due to pain/discomfort
  - Instruct pt on gentle self-care regimen, may include Chlorhexidine 0.12% rinse twice daily
- Follow-up appt, 2 days after initial visit
  - Subgingival periodontal instrumentation
  - Further instruction on self-care
- 2nd Follow-up appt, 5 days after initial visit
  - Subgingival instrumentation usually completed
- Appt following resolution of infection
  - Comprehensive clinical assessment

Treatment of NUP

- Complex
- May require medical consultation due to serious underlying conditions
- Immediately referred to Periodontist
Primary herpetic gingivostomatitis

- Initial infection of herpes simplex virus (HSV)
- Contagious during vesicular stage
- Infection can be spread to fingers, eyes
- Usually in children, but can occur at any age
- Once infected, infection can recur throughout life as herpes labialis

Clinical signs of primary herpetic gingivostomatitis

- Oral pain with difficulty eating and drinking
- Edematous gingival tissues
- Bleeding from gingival tissues
- Vesicles and ulceration, can involve lips, tongue, and palate
- Fever
- Malaise
- Swollen lymph nodes

How to manage PHG

- Remember it is contagious!
- Will regress on its own in about 2 weeks
- Control oral discomfort (topical oral anesthetic)
- Recommend frequent fluid intake to avoid dehydration
- Refer to physician if severe or unable to tolerate fluid intake

<table>
<thead>
<tr>
<th>Table 41-1</th>
<th>COMPARISON BETWEEN NECROTIZING PERIODONTAL DISEASE (NPD) AND PRIMARY HERPETIC GINGIVOSTOMATITIS (PHG)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NPD</td>
<td>PHG</td>
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<tr>
<td>Conus</td>
<td>Bacteria and tissue necrotic</td>
</tr>
<tr>
<td>Who</td>
<td>Young adult</td>
</tr>
<tr>
<td>Where</td>
<td>Interdental papilla, Punched beyond periodontium</td>
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<tr>
<td>Signs &amp; Symptoms</td>
<td>Ulceration, necrotic tissue, and gingival processes.</td>
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<tr>
<td>Fever/Loss</td>
<td>1-2 days if treated</td>
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<tr>
<td>Contagious</td>
<td>No</td>
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<tr>
<td>Treatment Focus</td>
<td>Systemic modification to support immune system</td>
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<tr>
<td>Intensity to recurrence</td>
<td>No</td>
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<tr>
<td>Long Term Effect</td>
<td>Permanent damage to periodontal tissue</td>
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