PERIODONTAL DISEASES

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OBJECTIVES
• Review clinical and radiographic signs of periodontal health
• Compare and contrast gingivitis and periodontitis
• Relate how local and systemic risk factors affect the development of periodontal diseases
• Classify periodontal diseases based on clinical and radiographic findings

OBJECTIVES
• Differentiate between the various classifications of gingivitis
• Differentiate between the various classifications of periodontitis
• Explain how periodontal case types are determined and utilized
HEALTH
- Color
- Contour
- Consistency
- Texture

CLINICAL ASSESSMENT
- Probing
- Bleeding
- Mobility
- Furcation involvement
- Radiographs

QUICK REVIEW
- Periodontal disease
  - Bacteria
  - Host response
  - Patient behaviors

  - What is the primary etiology of periodontal disease?

  - What information does the RDH use to determine if someone has or is at risk of developing periodontal disease?

PERIODONTAL DISEASES
- General Categories
  - Gingivitis
  - Periodontitis

  - What are the key differences between gingivitis and periodontitis?

CONTRIBUTING FACTORS
- Associated with disease, but do not necessarily cause disease
- Modify host response
- Local & systemic risk factors
  - Patients may be affected by BOTH
LOCAL FACTORS

• What does “local factor” mean as related to the development and progression of periodontal disease?

• What are some examples?

SYSTEMIC FACTORS

• What does “systemic factor” mean when discussing the development and progression of periodontal disease?

• What are some examples?

PERIODONTAL DISEASES AND SYSTEMIC HEALTH

• What systemic conditions or diseases are linked to untreated periodontal infections?

AMERICAN ACADEMY OF PERIODONTOLOGY CLASSIFICATIONS (1999)

• Gingival Diseases
• Chronic Periodontitis
• Aggressive Periodontitis
• Periodontitis: manifestation of systemic diseases
• Necrotizing Periodontal Diseases
• Abscesses of the periodontium
• Periodontitis associated with endodontic lesions
• Developmental or acquired deformities and conditions

GINGIVAL DISEASES

• Plaque-induced gingivitis
  • Plaque biofilm
  • Modified by
    • Systemic factors
    • Medications
    • Malnutrition
  • What are the primary bacteria associated with plaque-induced gingivitis?
GINGIVAL DISEASES

• Non plaque-induced gingivitis
• Viral or fungal
• Manifestations of systemic disorders
• Allergic reactions
• Trauma

CHRONIC PERIODONTITIS

• Most common
• Previously known as adult periodontitis
• Slow to moderate disease progression
• (about 1mm per year)
• Predominantly horizontal bone loss
• Modified by systemic diseases, smoking, stress
• What are the primary bacteria associated with chronic periodontitis?

CHRONIC PERIODONTITIS

• Rate of destruction varies depending on disease activity and patient’s resistance
• Episodic: Periods of exacerbation and quiescence
• Disease severity directly related to accumulation of biofilm and subgingival calculus
• Further classified by extent and severity
  • Localized or generalized
  • Slight, Moderate, Severe
AGGRESSIVE PERIODONTITIS

- Highly destructive
- Severe bone loss (more vertical bone loss)
- Rapid progression even in presence of relatively small amount of bacterial plaque or calculus
- Less predictable response to therapy
- What is the primary bacteria associated with aggressive periodontitis?

AGGRESSIVE PERIODONTITIS

- Immune deficiencies or genetic factors
- Historical subclassifications
  - Early-onset
    - Juvenile
    - Prepubertal
    - Rapidly-progressive
  - Refractory
    - Unresponsive to treatment

PERIODONTITIS: MANIFESTATION OF SYSTEMIC DISEASES

- Blood disorders
  - Leukemia, acquired neutropenia
- Genetic disorders
  - Down’s syndrome
  - Insulin dependent diabetes mellitus
- AIDS

NECROTIZING PERIODONTAL DISEASES

- NUG and NUP
- Sudden onset
- Pain
- Fiery red gingiva, spontaneous bleeding
- Necrotic, cratered, punched-out papillae

NECROTIZING PERIODONTAL DISEASES

- Fetid breath odor
- Fever, swollen lymph nodes
- NUP includes rapid, irregular bone loss
- Associated with systemic immune deficiencies, malnutrition, extreme stress
PERIODONTAL ABSCESES
• Acute or chronic
• Localized, purulent infection
• Most often with untreated chronic periodontitis
• Rapid bone loss
• Immediate treatment

PERIODONTITIS ASSOCIATED WITH ENDODONTIC LESIONS
• Differentiate from periodontal abscess
• Usually associated with caries, fractured tooth, trauma
• Require endodontic therapy
• Combined perio/endo lesions

DEVELOPMENTAL OR ACQUIRED DEFORMITIES OR CONDITIONS
• Anatomic factors
• Restorations
• Occlusal trauma
• Mucogingival deformities
  • Recession
  • Pseudopockets

AAP CASE TYPES
• Divides diagnosis into levels of severity
• Intentionally vague, does not define specific periodontal infections
• Used for treatment planning, insurance

CASE TYPE I
• Gingivitis
  • Gingival inflammation
    • Includes presence of hyperplasia
  • No attachment or bone loss
  • No mobility
  • No furcation involvement

CASE TYPE II
• Slight Chronic Periodontitis
  • Beginning bone loss
    • 10-20%
    • No more than 1-2mm CAL
  • Slight mobility may be present
  • Furcation limited to Class I
  • Probing depths may range from 4-5mm
CASE TYPE III

- Moderate Chronic Periodontitis
  - Moderate bone loss
    - 25-30%
    - 3-4mm CAL
  - Grade 1 mobility may be present
  - Furcation up to Class II
  - Probing depths may be 5-7mm

CASE TYPE IV

- Advanced Chronic or Aggressive Periodontitis
  - Severe bone loss
    - 40%+
    - >5mm CAL
  - Grade 2 or 3 mobility
  - Class II/III furcation involvement
  - Multiple teeth with guarded prognosis
  - Probing depths may be greater than 7mm

CASE TYPE V

- Refractory Chronic or Aggressive Progressive Periodontitis
  - Severe bone loss
  - Rapid progression
  - Resistant to therapy
  - Type not used often

ETHICAL CONSIDERATIONS

- What responsibility do you as a dental hygienist have in recognizing periodontal diseases?
- What would you do if you were in an office in which the dentist did not believe probing was necessary?
- What would you do if you were in an office in which you were only scheduled 30 minute appointments and told to “do the best that you could”? 