Diagnosis of periodontal disease

Lec

Gingival Diseases

Gingivitis is inflammation of the gingival tissue.

Gingivitis is characterized by areas of redness and swelling, and there is a tendency for the gingiva to bleed easily.

Gingivitis is limited to the epithelium and gingival connective tissues.

It is important to note that there is no tissue recession or loss of connective tissue or bone

Other types of gingivitis are associated with:

- Puberty

- Pregnancy

- Use of birth control medications

Gingivitis is painless and often unrecognized until a dental professional emphasizes its importance. Improved daily oral hygiene practices will reverse gingivitis.

Periodontitis

is means inflammation of the supporting tissues of the teeth.

Periodontitis is the extension of the inflammatory process from the gingiva into the connective tissue and alveolar bone that supports the teeth.

The progression of periodontitis involves the destruction of connective tissue attachment at the most apical portion of a periodontal pocket

Causes of Periodontal Diseases

Dental plaque is the major factor in causing periodontal disease.

Dental calculus provides a surface for plaque to attach.

- Subgingival calculus

- Supragingival calculus

Systemic Conditions linked to periodontal disease:
- Cardiovascular disease

- Preterm low birth weight

- Respiratory disease

- Diabetes mellitus

Risk Factors for Periodontal Disease

- Smoking

- Diabetes

-Poor Oral Hygiene

- Osteoporosis

- HIV/AIDS

- Medications

- Stress

Signs and Symptoms of Periodontal Disease

-Red, swollen, or tender gingiva

- Bleeding gingiva while brushing or flossing

- Loose or separating teeth

- Pain or pressure when chewing

- Pus around the teeth or gingival

Periodontal Diagnosis:

- Recognizing a departure from normal in the periodontium and distinguishing one disease from another.

- Based on information obtained from the medical and dental histories, clinical and radiographic examination of the patient and laboratory findings.

Why we do diagnosis?

-To determine whether the disease is present or not.

-Identify its types.

-Extent

-Severity

-Distribution

Underlying pathological process and their causes

Clinical diagnosis (First visit)

-Overall apprasial of the patient.

-Medical history.

-Dental history.

-intra-oral radiographic survey

-Cast

-Clinical photograph

Overall apprasial of the patient

-Mental and emotional status.

-Attitude

-Physiologic age

Medical history

Helps with diagnosis of oral manifestations of systemic disease

And may detect systemic conditions that may be affecting the periodontal tissue response. Oral infection may affect severity of some .systemic disease

It includes:

-Is the patient under the care of a physician?

-Hospitalization.

-Medications.

-Medical problems

-Occupational disease

-Abnormal bleeding

-Allergy

Dental history

Current illness , dental history includes:

-Dental visit

-Oral hygiene

-Orthodontic treatment

-Pain

-Bleeding gum

-Bad taste

-Do the tooth feel loose or insecure

-Dental habits

-Previous periodontal problems

Intra-oral radiographic survey

-14 intra-oral films + 4 posterior bitewing films

-Panoramic radiograph

They are helpful for the detection of developmental anomalies, pathologic lesions of the teeth and jaws, and fractures

<u>Radiographs do not</u>

-Show periodontal pockets

-Distinguish between successfully treated and untreated cases

-Show structures on buccal, lingual, and labial aspect of tooth

-Record tooth mobility

<u>full mouth series</u>

Look At:

-lamina dura

-crown:root ratio

-interproximal bone

-hypercementosis

-furcation involvement

-periapical pathology

-overhangs

-calculus

-resorption

Cast: used to study

-Position of gingival margin.

-Inclination of teeth

-Contact relationship

-Food impaction area

Visual aids in discussion.

Clinical Photograph

To record the appearance of tissues before and after surgery

Oral examination

-oral hygiene

Appraisal of cleanliness

Disclose

- mal odor: may be due to

ANUG **Food impaction**

caries **dehydration**

smoking **dentures**

diabetes **Infections**

alcohol

- oral cavity examination: include examination of

floor of mouth **Lip**

palate **tongue**

saliva **Oropharyngeal**

- lymph node

Periodontal and periapical lesions can result in inflammatory lymph nodes

<u>Examination of teeth</u>

Wasting disease, dental stain, hypersensitivity, proximal contact relationship, tooth mobility, trauma from occlusion, pathologic migration of teeth, sensitivity to percussion, dentition with jaw closed.

Erosion : wedge- shaped defect (enamel, dentine then cementum)

Attrition : occlusal wear result from functional contact with opposing teeth

Abrasion: saucer-shaped defect starts on cementum then dentine

Abfraction: occlusal loading surfaces causing flexure and mechanical microfractures and tooth substances loss in the cervical area

-Dental stain: It is pigmented deposits depend on the source

-hypersensitivity due to Exposed root surface

Proximal contact relationship: By clinical observation and dental floss

Tooth mobility

Physiologic mobility, pathologic mobility

-Normal mobility

-Less than 1 mm

-More than 1 mm

-Severe mobility faciolingually and mesiodistally combined with vertical displacement

Trauma from occlusion

-Excessive tooth mobility

-Widening of periodontal space

-Vertical or angular bone loss

-Intra bony pocket

Pathological migration

Pathologic migration of teeth may be due to:

-Tongue thrust

-Abnormal forces

-Pathologic migration of anterior teeth in young adult, may be sign of localized aggressive periodontitis

Examination of periodontium

Plaque and calculus, gingiva, pocket

Gingiva

Two types of gingival inflammation

-Edematous ;smooth, glossy, soft and red

-Fibrotic ; firm, opaque,thick and round margin

Gingival bleeding

More objective than color change.

Increase bleeding with increase inflammatory infilterate of tissues

By periodontal probe or wooden interdental cleaner.

In smokers, little or no bleeding mask the degree of inflammation.

Periodontal pocket

-Probing is best for pocket detection

- using of gutta percha point or caliberated silver points with radiograph

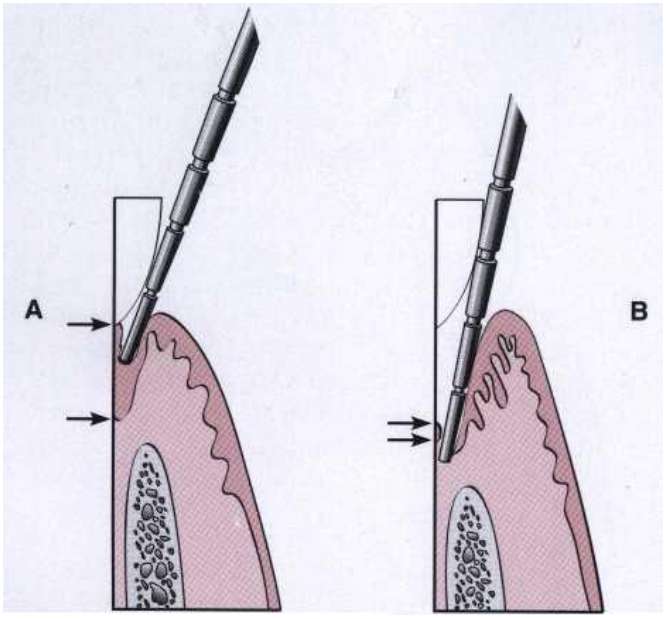
Pocket probing

The probing depth which depends on: size of the probe, force, convexity, direction and the tissue resistance

A, In a normal sulcus with a long junctional epithelium , the probe penetrates about one third to one half the length of the junctional epithelium.

B, In a periodontal pocket with a short junctional epithelium (between arrows),

the probe penetrates beyond the apical end of the junctional epithelium.



Alveolar bone loss

-Clinically by the probe; transgingival probing

Radiographic examination

suppuration

Placing the ball of the index finger along the lateral aspect of marginal gingiva and applying pressure in a rolling motion toward the crown