**Periodontology**

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**Periodontal Examination and Diagnosis**

**(Part 1)**

Proper diagnosis is essential to intelligent treatment. Periodontal diagnosis should first determine whether disease is present; then identify its type, extent, distribution, and severity; and finally provide an understanding of the underlying pathologic processes and its cause.

Periodontal diagnosis is determined after careful analysis of the case history and evaluation of the clinical signs and symptoms, as well as the results of various tests (e.g., probing, mobility assessment, radiographs, blood tests, and biopsies) and the findings must be pieced together so that they provide a meaningful explanation of the patient’s periodontal problem.

*The following is a recommended sequence of procedures for the diagnosis of periodontal diseases:*

**FIRST VISIT**

**-Overall Appraisal of the Patient**

Overall Appraisal of the Patient from the first meeting, the clinician should attempt an overall appraisal of the patient. This includes consideration of the patient’s mental and emotional status, temperament, attitude, and physiologic age.

**-Medical History**

Most of the medical history is obtained at the first visit and can be supplemented by pertinent questioning at subsequent visits. The health history can be obtained verbally by questioning the patient and recording his or her responses on a blank piece of paper or by means of a printed questionnaire the patient completes and the patient should be made aware of (1) the possible role that some systemic diseases, conditions, or behavioral factors may play in the cause of periodontal disease. (2) The presence of conditions that may require special precautions or modifications in the treatment procedure. (3) The possibility that oral infections may have a powerful influence.

***The medical history should include reference to the following:***

1. Is the patient under the care of a physician and if so, what is the nature and duration of the problem and the therapy? The name, address, and telephone number of the physician should be recorded, since direct communication with him or her may be necessary.

2. Details on hospitalizations and operations, including diagnosis, kind of operation, and untoward events, such as anesthetic, hemorrhagic, or infectious complications, should be provided.

3. A list of all medications being taken and whether they were prescribed or obtained over-the-counter. All the possible effects of these medications should be carefully analyzed to determine their effect, if any, on the oral tissues and also to avoid administering medications that would interact adversely with them. Special inquiry should be made regarding the dosage and duration of therapy with anticoagulants and corticosteroids. Patients taking the family of drugs called bisphosphonates (e.g., Actonel, Fosamax, Boniva, Aredia, and Zometa), which are often prescribed for patients with osteoporosis, should be cautioned of possible problems related to osteonecrosis of the jaw after undergoing any form of oral surgery involving the bone.

4. History should be taken of all medical problems (cardiovascular, hematologic, endocrine, etc), including infectious diseases, sexually transmitted diseases, and high-risk behavior for human immunodeficiency virus (HIV) infection.

5. Any possibility of occupational disease should be noted.

6. Abnormal bleeding tendencies, such as nosebleeds, prolonged bleeding from minor cuts, spontaneous ecchymosis, tendency toward excessive bruising, and excessive menstrual bleeding, should be cited.

7. History of allergy should be taken, including hay fever, asthma, sensitivity to foods, or sensitivity to drugs, such as aspirin, codeine, barbiturates, sulfonamides, antibiotics, procaine, and laxatives, and to dental materials such as eugenol or acrylic resins.

8. Information is needed regarding the onset of puberty and for females, menopause, menstrual disorders, hysterectomy, pregnancies, and miscarriages.

9. Family medical history should be taken, including bleeding disorders and diabetes.

**-Dental History**

A preliminary oral examination is done to explore the source of the patient’s chief complaint and to determine whether immediate emergency care is required. If this is the case, the problem is addressed after consideration of the medical history.

**The dental history should include reference to**:

1. A list of visits to the dentist should be supplied, including frequency; date of the most recent visit; nature of the treatment; and oral prophylaxis or cleaning by a dentist or hygienist, including frequency and date of most recent cleaning.

2. The patient's oral hygiene regimen should be noted, including tooth brushing frequency, time of day, method, type of toothbrush and dentifrice, and interval at which brushes are replaced. Other methods for mouth care, such as mouthwashes, finger massage, interdental stimulation, water irrigation, and dental floss.

3. Any orthodontic treatment, including duration and approximate date of termination, should be noted.

4. If the patient is experiencing pain in the teeth or in the gums, the manner in which the pain is provoked, its nature and duration, and the manner in which it is relieved should all be noted.

5. Bleeding gums should be cited, including when first noted; whether it occurs spontaneously, on brushing or eating, at night, or with regular periodicity; whether it is associated with the menstrual period or other specific factors; and the duration of the bleeding and the manner in which it is stopped.

6. A bad taste in the mouth and areas of food impaction should be recorded.

7. Do the teeth feel "loose" or insecure? Is there difficulty in chewing? Any tooth mobility should be recorded.

8. The patient’s general dental habits such as grinding or clenching of the teeth during the day or at night. Do the teeth or jaw muscles feel “sore” in the morning? Are there other habits such as tobacco smoking or chewing, nail biting, or biting on foreign objects?

9. History of previous periodontal problems, including the nature of the condition and if previously treated, the type of treatment received (surgical or nonsurgical) and approximate period of termination of previous treatment. If, in the opinion of the patient, the present problem is a recurrence of previous disease, what does he or she think caused it?

10. Does the patient wear any removable prosthesis? Does the prosthesis enhance or is it a detriment to the existing dentition or the surrounding soft tissues?

11. Does the patient have implants replacing any of the missing teeth?

-**Intraoral Radiographic Survey**

The radiographic survey should consist of a minimum of 14 intraoral films and four posterior bite-wing films. Panoramic radiographs are a simple and convenient method of obtaining a survey view of the dental arch and surrounding structures. They are helpful for the detection of developmental anomalies, pathologic lesions of the teeth and jaws, and fractures as well as dental screening examinations of large groups.

They provide an informative overall radiographic picture of the distribution and severity of bone destruction in periodontal disease, but a complete intraoral series is required for periodontal diagnosis and treatment planning.

**-Casts**

Casts from dental impressions are useful adjuncts in the oral examination. They indicate:

1-The position of the gingival margins (recession) and the position and inclination of the teeth.

2-Proximal contact relationships and food impaction areas.

3-They provide a view of the lingual-cuspal relationships.

4-Casts are important records of the dentition before it is altered by treatment.

5-Serve as visual aids in discussions with the patient and are useful for pretreatment and posttreatment comparisons, as well as for reference at recall visits.

6-They are also helpful to determine the position of implant placement if the case will require their use.

**-Clinical Photographs**

Color photographs are useful for recording the appearance of the tissue before and after treatment. Photographs cannot always be relied on for comparing subtle color changes in the gingiva, but they do depict gingival morphologic changes. With the advent of digital clinical photography, record-keeping for mucogingival problems, such as areas of gingival recession, frenum involvement, and papilla loss has become important.

***God’s choices for us are always more beautiful than our wishes***