KING SAUD UNIVERSITY
COLLEGE OF DENTISTRY

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CLINICAL HANDBOOK

DEPARTMENT OF PERIODONTICS AND COMMUNITY DENTISTRY

313 PCS - CLINICAL PERIODONTOLOGY I

Initial interview with the patient and Medical History Recording

CLINICAL EXAMINATION AND DIAGNOSIS OF PERIODONTAL DISEASES

The clinical examination of patients for periodontal disease follows a specific and orderly sequence to allow the dentist to establish a diagnosis. Without a correct diagnosis, it is not possible to formulate a treatment plan and begin effective therapy. Diagnosis may be defined as the art or act of recognizing disease from its signs and symptoms.

A **sign** is a finding that the clinician makes or observes. A **symptom** is a finding the patient makes or relates to the clinician. The clinical examination of the periodontium includes:

l) patient interview, 2) medical consultation and laboratory tests as indicated, 3) clinical periodontal examination, 4) radiographic examination, and 5) thoughtful re-assessment of all data to arrive at a diagnosis.

A. Patient Interview

The patient interview includes information concerning the source of referral, chief complaint, and medical and dental history.

1. Source of Referral

This may be significant if the patient was referred by another dentist or physician. If the source of referral is from one of these, the previous dental or medical history may be a valuable asset in determining a diagnosis. An example would be a referral from a physician of a patient who has monocytic leukemia but who is now in remission. It would be critical that the referring physician be contacted to obtain an accurate medical history.

2. Chief Complaint

It is critical that the chief complaint of the patient be recorded in the patient's own words in the dental record. In this way, one may recall this when assessing the entire examination. Examples of common chief complaints are "My gums bleed when I brush", "My front teeth have been moving apart", "My teeth are getting loose", "I have a gum boil" or "I have bad breath".

The history of the chief complaint is known as the **Present Illness.** It is merely a brief history of the chief complaint. An example would be that the patient has experienced bleeding upon brushing for the past 2 weeks but that there has been no pain associated with it and that it stops as soon as brushing is stopped.

It should be remembered that most patients with chronic periodontitis do not have a chief complaint. They have become so used to the symptoms of periodontal disease for so long that they think the symptoms are a normal finding. They may not even notice any teeth getting loose because it has been a gradual process over a period of years.

For the majority of patients with chronic periodontitis, it is up to the dentist to determine if it is present. One cannot wait for patients to present with a chief complaint because then it is often too late to provide effective therapy.

3. Medical History

All patients must have a current medical history recorded. No part of the clinical examination is begun until this is completed except the chief complaint and present illness. The absolute minimum requirement is that it must be known if the patient is under the care of a physician, is taking any medications, has any history of cardiac disease, heart murmur, rheumatic fever, congenital heart disease, prosthetic heart valve or joint replacement, kidney or liver disease, hypertension, diabetes, allergies, abnormal bleeding tendencies, contagious diseases, hematologic disease, malignancy, or previous treatment for malignancy.

Any positive response is followed up by the dentist with leading questions to elaborate on the response of the patient. It should always be remembered that patients often consider themselves in "good health" when they have very significant medical problems, which would influence their dental/periodontal care. It is up to the dentist to elicit an accurate and complete medical history. This should not be delegated to other personnel.

4. Dental History

The history of dental care is obtained to determine if the patient has had previous periodontal care and the nature of the care. This will have a major influence on the diagnosis and treatment plan. The treatment plan for a patient who has had extensive periodontal care may be completely different for the same severity of disease than in another patient who has not previously had any periodontal care. One should also be very careful about making judgmental statements to the patient about their previous dental care because one does not really have accurate information regarding the care that was previously given.

B. Medical Consultation, Laboratory Tests

Medical consultation is always indicated when the medical history elicits any finding about which the dentist must obtain more information. A common example is when patients give a history of a heart murmur. Medical consultation should be obtained to determine if the patient requires prophylactic antibiotic therapy for induced bacteremia. **Periodontal probing or any procedure that may induce bleeding is contraindicated in all patients with high or moderate risk for endocarditis unless antibiotic prophylaxis is provided, or unless the physician tells you (preferably in writing) that antibiotic coverage is not needed.** High-risk patients include those with prosthetic heart valves, previous history of endocarditis, complex cyanotic heart disease, or surgically constructed systemic pulmonary shunts or conduits. Moderate risk patients include uncorrected congenital cardiac conditions such as patent ductus arteriosus, ventricular septal defect, primum atrial septal defect, coarctation of the aorta, and bicuspid aortic valve. **Acquired valvar dysfunction (e.g., due to rheumatic fever or collagen vascular disease and hypertrophic cardiomyopathy are also moderate-risk conditions. Patients with prolapsing and leaking mitral valves, evidenced by audible clicks and murmurs of mitral regurgitation or by Dop pler-demonstrated mitral insufficiency, should receive prophylactic antibiotics (1)**

American Heart Assn. recommendations http://www.amhrt.org/

Patients with orthopedic implanted prosthesis (joints), pins, plates, or screws do not routinely need antibiotic prophylaxis (2). However, it is advisable to consider prophylaxis in

some patients who may be at increased risk for hematogenous joint infection and it is important to consult with the patients physician before procedures are done that cause bacteremia in patients who have had total joint replacement. Similarly, there are a number of other findings in the medical history that may require medical consultation. A good rule to follow is that when in doubt, one should always consult.

Laboratory tests are infrequently accomplished by the dentist and are not needed to establish a diagnosis of periodontal disease. However, microbiological testing for specific periodontal pathogens in subgingival plaque may be helpful in patients who have refractory periodontal disease.

Laboratory tests are indicated when more information is needed about the patient's medical status. Examples would be when there is a history of a bleeding tendency or diabetes. These tests are generally best performed by the patients' physician at the request of the dentist and in consultation with the physician.

C. Clinical Examination

1. Extra-oral Examination

The **head and neck** region is surveyed for any abnormal findings by visual inspection and palpation.

2. Intra-oral Examination

The **soft tissues** of the oral region and oro-pharynx are surveyed by a thorough visual and palpation examination for any abnormal findings. Any abnormal findings are recorded in the chart and investigated further by biopsy or referral as indicated.

The **teeth** are examined for caries, open contacts, wear facets, uneven marginal ridges, open contacts, malposition, failing restorations, evidence of food impaction, and tenderness on percussion. Pulp testing is accomplished as indicated by the history or radiographic examination.

The **occlusion** is examined for centric relation, working, non-working, and protrusive interferences. Evidence of occlusal trauma as indicated by fremitus (mobility in function) and bidigital mobility is recorded. Mobility during function (fremitus) is best determined by having the patient make repeated habitual centric and excursive movements while the dentist places the index finger lightly on the buccal surfaces of the teeth to feel for tooth movement.

The **temporomandibular joints** are palpated for any noise (crepitus), clicks, or abnormal movement during opening, closing and excursive mandibular movement.

The **gingiva** must be visually examined for signs of inflammation. These include **color changes** varying from a normal light pink color. **Bleeding upon probing** is recorded by using a bleeding index, which records the percentage of gingival units that bleed upon probing. The **architecture** of the gingival is observed for changes in the normal knife-edged appearance of the free gingival margin. The interdental papilla is observed for any enlargement, swelling, bulbous appearance, or interdental cratering. **Gingival recession** is noted and any lack of attached gingival or high frenum attachments are noted. The **consistency** of the gingiva is

observed by palpating the gingiva with the side of a periodontal probe to determine if there is any edema or fibrosis.

……to be continued in Week3