Chronic periodontities

Probing depth doesn’t mean pocketing

If the pocket kept untreated and the disease progressed it might lead to

 1.recession

 2. Mobility

3. Loss of the tooth .

Every periodontitis is proceeded by gingivitis, but not every gingivitis followed by periodontitis .

Why does chronic periodontities called site specific disease?

Because not every (mm) in the gingiva that has inflammation and chronic gingivitis will progress to periodontitis .

For EX: In the lower central we have mesial ,distal , and the labial surface , if the three surfaces have plaque there is a chance that we will find pocketing on 3 or 2 surfaces but it’s not necessary to have pocketing on all surfaces .

Classification of chronic periodontitis (extent and severity)

Terminology expressing both extent and severity of periodontal disease are appendant to the terms above to give the specific diagnosis of a particular patient or a group of patients .

What is the meaning of extent and what is the meaning of severity ?

* Extent : the number of sites involved (The 6 sites that we choose to examine scientifically each tooth whether its anterior or posterior) → represented by a percentage

Not every mm that have plaque or gingivitis will develop a pocket

How to know if the case is periodontitis or not?

We move the probe around all the gingival sulcus , whenever the probe is penetrating more than 3 mm we have pocketing .

So the term extent tells us whether the disease is localized or generalized.

For Ex: I have 20 teeth and I want to examine the sulcus all around the 20 teeth it won’t be practical , so the scientists found that the best way to measure only 6 sites around each tooth ( mesial, distal , midline , mesiolabial, distolabial and mid buccal ).

lets assume that a patient has 20 teeth – 120 site to examine - the rule says if I examined 120 site and found 40 sites have pocketing(>3 mm)
so 30% of the examined sites have periodontitis so it is localized

<=30% 🡪 localized.
>= 31% 🡪 generalized.

**Sites are defined as the position at which probing measurements are taken around each tooth, and generally six probing sites around each tooth are recorded .**

* Severity : the degree(measured by millimeter) of loss of attachment → represented by mean average 🡪 refers to the amount of periodontal ligament fibers that have been lost and clinical attachment loss.

If the probing depth was 3 mm 🡪 no attachment loss

If the probing depth was 4 or 5 mm 🡪 there is attachment loss (apical migration of the junctional epithelium.

If the patient was left untreated for a very long time one of the clinical signs and symptoms would be recession .

Recession is considered as attachment loss

How to measure recession ?

We put a probe from the cement-enamel junction to the gingival margin .

Clinical attachment loss = recession + pocketing

Severity : the sum of the loss of attachment whether it was recession , loss of attachment or pocketing .

So any tooth has sites with pocketing and gingival recession we calculate them together and that’s called total loss of attachment of tooth → ( recession + pocketing / # of sites )

1. 0-2 🡪 mild
2. 2-4 🡪 moderate
3. > 4 🡪 sever

Severity is a term used to monitor the progression of the disease not for the sake of treatment .

1. If the severity stays as it is the case is stable.
2. If the destruction increased the disease is progressed .
3. If there is good healing and the pocketing is decreased the disease is improving. **(only the pockets will decrease the recession will remain as it is )**

So severity is as an indication of the progression.

\*\* pocket is a past disease , we don’t know when

the disease started and when it progressed .

how do we know that the disease is active ?

by the active pocket ( pocket that contains pus )

pus is coming from antigen –antibody reaction .

* The classification of severity is as follow :
1. Slight mild periodontitis (1-2mm) of attachment loss
2. Moderate (3-4mm) of attachment loss
3. Sever (>5mm) of attachment loss

The Dr gave us at the beginning of the 1st semester 3 papers that show how to calculate severity and classification of periodontitis, you have to study them .

* Periodontal pocket :

how does the pocket occur ?

heavily inflamed junctional epithelium that becomes heavy and migrate apically ( increased pocket depth ).

Periodontal attachment loss : Its measured from the CEJ to the base of the sulcus

Pocket depth is measured from the gingival margin to the base of the pocket.

Loss of attachment measures the recession , otherwise pocketing measure the sulcus depth

The reference line we use in perio is the CEJ ( our cut off point)



The Dr showed a case where there's a gingival enlargement (coronal migration of gingiva), so there would be pseudo pocket.

* How to measure pseudo pocket and true pocket?

We insert the probe and take the reading between the gingival margin and the base of sulcus/pocket which was = 9 mm→ complete depth

Then reinsert the probe slowly until the CEJ , and takes the reading between the gingival margin and the CEJ which was = 3mm → pseudo pocket ( anything above the CEJ is considered as a pseudo pocket )

\*\*the true pocket = complete depth- pseudo pocket = 6 mm \*\*

The prob we use have a ball (0.5mm) at the end to help us not to bypass the CEJ .

* Pathological deepening of the sulcus : It’s a pathological increase in the depth of the sulcus caused by plaque,if there's no plaque, there will be no deepening of the sulcus. Pockets form by apical migration of junctional epithelium.

We could have a pocket with bone loss or pocket without bone loss .

* Burst and quiescence :

Burst (suddenly) doesn’t occur in slow continuous motions .

Quiescence: reduced inflammatory response and little or no loss of bone and connective tissue attachment . 🡪 we have disease that stops for no reason ( unexplained by science ) .

\*\* minimal loss of bone , minimal pocketing and then this pocket remains indifferently stationary .

* Periodontitis may exhibit in 2 forms 1.with pocket 2. Without pocket.

With pocket : scaling, polishing, oral hygiene and proper root debridement in 99% of cases there is healing and loss probing depth , but in some cases there is bone loss which make the efficiency of the treatment less .

* types of pockets according to its location in relation to the crest of the bone :

1 – suprabony pocket : located above the level of crest of the bone regardless the depth of the pocket and amount of bone resorption .

2 – infrabony pocket : located below the level of crest of the bone .

The previous classification is further classified according to the location of the pocket in the bone into:

1 – Three wall pocket : intrabony pocket that has three intact bony walls and one resorbed bony wall .

2 – Two wall pocket : intrabony pocket that has two intact bony walls and two resorbed bony walls .

3 – one wall pocket : intrabony pocket that has one intact wall and three resorbed bony walls.

When the pocket Is surrounding the whole circumference of the tooth it looks like a cup from an occlusal view .

When attachment loss occurs , gingival recession will happen whether it's an anterior or posterior tooth , but in the posterior tooth , if the recession extends below furcation area then it's called furcation involvement . (furcation is found in posterior teeth only)

* classification of gingival recession:
1. Grade 1: marginal tissue recession that doesn’t involve the mucogingival junction , and no interdental bone resorption . ( the prognosis is excellent/ (treatable.))
2. Grade 2: marginal tissue recession that extends beyond the mucogingival junction, but no interdental bone resorption .(treatment is problematic but it is treatable) 🡪 moderate -fair prognosis.

Grade 1&2 : the treatment is tooth covering not extraction

1. Grade 3: marginal tissue recession exceeds mucogingival junction, soft tissue loss in the interdental areas, mal positioning of the teeth preventing 100% root coverage so we can’t cover it all, maximum we can cover half of the root. ( the treatment is problematic )

D. Grade 4 : gingival recession exceeds mucogingival junction and complete loss of interdental bone .( extensive bone loss , roots are exposed ).

We need this classification to know the prognosis of each case

Good luck ☺

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