WHAT IS THE PURPOSE OF WHAT WE DO?

WHAT DO PERIODONTISTS DO THAT IS BEYOND YOUR TREATMENT?

OBJECTIVE

- Create a heightened sense of Periodontal Awareness
- Help more patients
- Do more Periodontal Therapy
- Assure thoroughness in Diagnosis and Treatment
- Give YOU the tools to talk to patients

THE SMILE IS ONE OF THE MOST IMPORTANT TOOLS IN INFLUENCING PEOPLE

Dale Carnegie
WHERE DOES PERIODONTAL THERAPY START?

The First Visit
The Examination
Re-Care Visit
Periodic Exam

WHAT WE DO IS IMPORTANT!

THE EXAMINATION

• The Medical History
• The Dental History
• The Clinical Examination
• Possible Physician Consultation
• The Radiographic Examination

THE MEDICAL HISTORY

• Findings that would influence the DELIVERY of dental treatment
  • Contraindications
    • IV Bisphosphonates
    • Bleeding Disorders
  • Complications
    • Prosthetic Joints
    • Allergies to Therapeutic Medications

THE MEDICAL HISTORY

• Findings that would influence the OUTCOME of dental treatment
  • Systemic Illness
    • Diabetes
    • Pregnancy
  • Medications
    • Calcium Channel Blockers
    • Cyclosporin
    • Bisphosphonates
THE MEDICAL HISTORY

- Hematologic Disorders
  - Leukemia
  - Bone Marrow Transplants
- Immune System Disorders
  - HIV
  - AIDS

Findings that would make dental health/disease a risk for systemic health
- Cardiovascular Disease
- Stroke
- Diabetes
- Pregnancy
- Prosthetic Joints
- Etc.

THE DENTAL HISTORY

- Present Chief Complaint
  - What Problems Is the Patient Having?
- History of Chief Complaint
- Patient's Goals of Treatment
  - Short Term Goals
  - Long Term Goals (KEEP THEIR TEETH?)
- Relevant Dental Treatment History
  - Past Periodontal Treatment
  - Maintenance Care History

THE CLINICAL EXAMINATION

Should You Treat This Patient?
How Should You Treat This Patient?
How Aggressively Should You Treat This Patient?
THE CLINICAL EXAMINATION
• Extra-oral Examination
  • Neck Palpation
  • Nodes
  • Peri-oral tissues
  • Lips
• Intra-oral Examination
  • Buccal Mucosa
  • Palate
  • Floor of the Mouth
  • Tongue

• Missing Teeth
• Damaging Movement Caused By Missing Teeth
• Bone Loss Caused By Missing Teeth
• Plaque Level
• Calculus Level
• Inflammation Level

THE CLINICAL EXAMINATION
• Mucogingival Evaluation
  • Recession
  • Keratinized Tissue
  • Frenum Pulls
• Periodontal Charting
  • Pocket Depths
  • Bleeding, Exudates
• Functions
• Mobility

THE CLINICAL EXAMINATION
• Occlusal Examination
  • Prematurities
  • Parafunction
  • Fremitus
• Hard Tissues
  • Caries
  • Defective Restorations
  • Open Contacts
• Gingival Display/Esthetics

EVALUATION OF ORAL HYGIENE
• Presence or Absence of Food Debris, Plaque and/or Calculus
• Plaque Index
• Evidence of Traumatic Brushing and/or Flossing

EVALUATION OF SOFT TISSUES
• Color
• Contour
• Texture
• Integrity of Papillae
• Spontaneous Bleeding and/or Suppuration
PERIODONTAL CHARTING

THE PROBE IS THE KEY TO PERIODONTAL DIAGNOSIS; IT’S SAID “WHEN THE PROBE APPEARS, THE DISEASE APPEARS. AND WHEN THE PROBE DISAPPEARS, SO DO THE TEETH.”

PERIODONTAL PROBING

FACTORS EFFECTING THE ACCURACY OF PERIODONTAL PROBING

• Pressure (25 grams of force)
• Angulation
• Tooth Contour
• Inflammatory Status
• Type of Probe

Accurate to within ~ 1.0 mm.

BLEEDING ON PROBING

MEASUREMENT OF GINGIVAL RECESSION
**EVALUATION OF TOOTH MOBILITY**

*Grade 1: crown of tooth moves 0.2 to 1.0 mm in a horizontal direction.*

Grade 2: crown of tooth moves > 1.0 mm horizontally.

Grade 3: crown of tooth moves in a vertical direction.

*Method for recording mobility proposed by Lindhe

**EVALUATION OF FURCATION INVOLVEMENT**

**EVALUATION OF OCCLUSION AND INTERDENTAL RELATIONSHIPS**

**DENTAL RADIOGRAPHS**

“Please Evaluate tooth #14 for Possible Perio – Endo.”

Soft Tissue Management Has Been Completed.

NEW PATIENT
What else is going on?

DIAGNOSIS

- Moderate to Advanced Periodontitis
- Bruxism
- Occlusal Trauma
- Root Fracture #14

TREATMENT PLAN

- Occlusal Adjustment
- Pocket Reduction

- Prognosis
  - Overall Good
  - #2,3,14,15 Poor to Hopeless

IN THIS CASE

- Distribution of Bone Loss was Important
- Early Furcation Loss was Important
- Mobility was Important
- Occlusal Examination was Important
GOOD CLINICAL RECORDS ARE ESSENTIAL

For Diagnosis and development of an appropriate course of treatment.
As an objective means to monitor progress of treatment or disease.
To minimize liability risks.
For processing insurance claims.

POCKETS:
- 0 to 3 mm = healthy to gingivitis = Type I
- 3 to 4 mm = early periodontitis = Type II
- 4 to 6 mm = moderate periodontitis = Type III
- 6 mm or greater = advanced periodontitis = Type IV

THREE TREATMENT TREES FOR PERIODONTAL THERAPY

EXAMINATION
TREATMENT
RE-EVALUATION
MAINTENANCE AND MONITORING

THREE TREATMENT TREES FOR PERIODONTAL THERAPY

EXAMINATION
TREATMENT
RE-EVALUATION
REFER FOR SPECIALTY CARE
MAINTENANCE AND MONITORING

RE-EVALUATION

- SCORE ORAL HYGIENE - GOOD/FAIR/POOR - OFFER SUGGESTIONS
- REPROBE AND CHART POCKET AREAS
- MARK BLEEDING POINTS, SUPPURATION AND SIGNS OF INFLAMMATION

RE-EVALUATION

- RECORD MUCOGINGIVAL DEFECTS – ZONES OF INADEQUATE ATTACHED GINGIVA
- EVALUATE MOBILITY AND OCCLUSAL PROBLEMS
- RE-EVALUATE THE RADIOGRAPHS – ESPECIALLY BONE LEVELS
- DECIDE TO REFER TO A PERIODONTIST OR TO CONTINUE MAINTENANCE
THREE TREATMENT TREES FOR PERIODONTAL THERAPY

EXAMINATION
REFER FOR SPECIALTY CARE
MAINTENANCE AND MONITORING

WHEN TO REFER TO A PERIODONTIST PRIOR TO INITIATING SOFT TISSUE MANAGEMENT

- Patient has severe isolated defects
- Patient is medically compromised with systemic factors
- Treatment plan questions relative to questionable teeth
- Complex interdisciplinary cases
- Unknown prognosis of strategic abutment teeth
- Advanced disease with or without mobility
- Rapid Bone deterioration
- Laser Periodontal Therapy is being considered (LANAP)

SOFT TISSUE THERAPY

BENEFITS OF SOFT TISSUE THERAPY

- Helps patients reduce or eliminate disease = healthier patients
- Builds rapport with the new patient
- Builds patient’s confidence in the diagnosis and the treatment plan and quality care of the office

BENEFITS OF SOFT TISSUE THERAPY

- Increases the education of the patients
- Legally informs patients of their periodontal status
- Helps maintain periodontal stability

BENEFITS OF SOFT TISSUE THERAPY

- Easier to determine who needs to be referred to the periodontist
- Improves predictability of restorative care
- Creates a better environment in which to perform restorative dentistry
BENEFITS OF SOFT TISSUE THERAPY

• INCREASES DOLLAR PRODUCTION AND PROFIT
• INCREASES NEW PATIENT REFERRALS FOR THE GENERAL PRACTICE
• INCREASES HYGIENIST’S PROFESSIONAL SELF-ESTEEM

BENEFITS OF SOFT TISSUE THERAPY

• POSSIBLE INCREASE OF BENEFITS TO THE STAFF AND HYGIENISTS IN PARTICULAR
• PROVIDES THE HIGHEST LEVEL OF CARE TO OUR PATIENTS
• IT’S THE RIGHT THING TO DO

MECHANICS OF SOFT TISSUE MANAGEMENT

• Diagnose your patient
• Determine the number of scaling appointments necessary
  • Type 2 - 1 appt of light scaling or prophy
  • Type 3 - 2-3 appointments of scaling and root planing
  • Type 4 - 4-6 appointments of scaling and root planing
• Each appointment is approx. 1 hour of time

MECHANICS OF SOFT TISSUE MANAGEMENT

• Try to do scaling and root planing within a close time frame.
• Recommend doing with anesthetic
• Must do a re-evaluation following scaling and root planing

WHAT IS THE PROBLEM TODAY?

Periodontal Therapy has become synonymous with:

SOFT TISSUE MANAGEMENT
CARIES REMOVAL

The Restorative Equivalent of:

HARD TISSUE MANAGEMENT

Beyond Soft Tissue Management is:

Main Periodontal Procedures

- Non-surgical treatments
  - Scaling and root planning
  - Adjunctive/anti-biotic therapy
- Laser therapy
- Periodontal surgery
  - Pocket reduction procedures
  - Regenerative procedures
  - Soft tissue grafts
  - Crown lengthening
- Cosmetic procedures
  - Ridge augmentation

WHICH PROCEDURES DO YOU DO AND WHEN?
TREATMENTS FOR PERIODONTAL DEFECTS

- Scaling and Root Planing + Supportive Therapy
- Osseous Surgery (Flap Surgery)
- Guided Tissue Regeneration
- Gingivectomy
- Laser Periodontal Therapy

PATIENTS first need to understand and “own” their disease

SLOW DOWN!

Patients first need to understand and “own” their disease

TALKING PERIODONTAL DISEASE

- Explain periodontal probings before you take them, patients have no clue what a 6mm pocket means
- Overhear works very well, say numbers out loud
  - “Biologic Seal” around the tooth; these numbers test to see if you have a healthy seal
- Leaky seals allow bacteria to invade the gums and nest
- Nesting bacteria erodes the bone around your teeth and can cause them to loosen and fall out

TALKING PERIODONTAL DISEASE

- Gum disease usually doesn’t hurt so it’s best (easier, less expensive) to treat early
- Our goal is to help you keep your teeth for the rest of your life
- To do that, we need your toothbrush and floss to work for you because you brush 365 days a year 1-3 times per day and we only see you 2, 3, 4 times
- Your toothbrush and floss can only reach 3mm and my instruments can’t really reach beyond 4mm

TALKING PERIODONTAL DISEASE

- I think it’s best that we (do a deep cleaning, increase recalls, refer to a periodontist) in order to keep these pockets at a maintainable level
- There is no cure for periodontal disease, it has to be managed like blood pressure or diabetes. It never goes away, can go up and down, and can come back once you have it under control

TREATMENTS FOR PERIODONTAL DEFECTS

- Osseous Surgery (Flap Surgery)
- Improve Hard Tissue Contours (Create Physiologic Architecture)
- Access for Debridement
- Pocket Reduction
- Visual Inspection (cracks, root grooves, etc.)
- Talking Surgery
  - It’s a surgical deep cleaning that removes the nesting bacteria and stitches healthy gums down tighter around the tooth creating a healthier and more cleansable area
**TREATMENTS FOR PERIODONTAL DEFECTS**

- **Guided Tissue Regeneration**
  - Similar to osseous surgery but may not be resective
  - Trying to regenerate bone, PDL, cementum
  - Can use a variety of different methods:
    - Emdogain/Gem 21/PRP
    - Bone Grafts
    - Membranes

- **Guided Tissue Regeneration**
  - Need to have bone in order to get bone

- **Talking Perio**
  - The periodontist may try to regrow the bone and gum attachment to the tooth

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**TREATMENTS FOR PERIODONTAL DEFECTS**

- **Gingivectomy**
  - Not often performed; mostly cosmetic
  - Pocket formation without bone loss
  - Remove overgrowth

- **Talking Perio**
  - Keep your eyes out for “gummy smiles”

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**TREATMENTS FOR PERIODONTAL DEFECTS**

- **Laser-Assisted New Attachment Procedure**
  - Same goals as the other therapies
  - Not resective but regenerative
  - Uses lasers instead of incisions/stitches
  - Uses the patient's own blood cells for healing

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**HOW DO YOU DECIDE ON TREATMENT?**

- Review the Clinical Information (Health, Radiographs, Past Periodontal Charts)
- Review Oral Hygiene
  - “Garbage In, Garbage Out”—no surgery unless the patient can take care of it
- Defect Morphology and Probing Information Determine our Treatment Options
  - Number of bony walls
  - Morphology of Defect
  - What will the end result look like?
    - Cosmetics, Amount of Gingiva, Gingival Levels
Bone Walls and Treatment Options

- One Walled Defect – Resection
- Two Walled Defect – Combination of Regeneration and Resection
- Three Walled Defect - Regeneration

Options in Regeneration

- Wide Defects Require More Advantages in the Graft
  - Autogenous Bone
  - Membrane
  - Growth Factors
- Narrow Defects Bring More Advantages to the Graft
  - Blood Supply
  - Containing a Stable Graft/Clot
GUIDED TISSUE REGENERATION
GUIDED TISSUE REGENERATION

- Porcine Enamel Matrix Derivative
- Contains Growth Factors that Promote Regeneration
- Mix with Bone, Membrane, or Alone

EMDOGAIN

- Synthetic Platelet Derived Growth Factor
- Biologic Modifier in a TCP matrix
- Stimulate Regeneration
Gingival Recession

- Gingival recession is defined as the oral exposure of the root surface due to a displacement of the gingival margin apical to the cementoenamel junction and it is regularly linked to the deterioration of dental esthetics.
- Successful treatment of recession-type defects is based on the use of predictable periodontal plastic surgery (PPS) procedures.

Gingival Recession - Causes

- Mechanical Trauma
- Tooth Position
- Periodontal Inflammation/Disease
- Frenal/Muscle Attachments
- Orthodontic Movement

Trauma-induced Recession

- Flossing Clefts
  - Red clefs
  - Incomplete clefs
  - Complete clefs
Trauma-induced Recession

Foreign Body Trauma
- Piercings
- Toothpicks
- Other Oral Habits

Orthodontic Movement

- Often seen with labial movement outside the alveolar housing
- Hygiene can be compromised from the hardware or narrow clefting
- Often seen with extraction of a lower incisor

Thin Periodontal Tissues at Risk

Post-Orthodontic Recession

- Often seen when teeth are moved outside the alveolus or into thin alveolar bone
- Most commonly first molars and lower incisors
- Can see it generalized

Grafting Before/After Orthodontics

- Interdisciplinary Treatment Planning
  - Restorative
  - Orthodontic
  - Periodontal
  - Patient
- Depending on tooth movement and properties of the periodontal tissues

Orthodontic Treatment
Ideal Margins Can Have Long Term Stability

Restorative Etiology

Mixed Etiology

Mixed Etiology

Factors Predisposing to Gingival Recession
No root coverage can be expected

Other Contributing Factors
- Tooth Rotation
- Loss of Papilla Height
- Tooth Shape
- Tooth Eruption
Classic Miller Classification

<table>
<thead>
<tr>
<th>CLASSIFICATION OF MARGINAL TISSUE RECESSION.*</th>
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<td>CLASSIFICATION</td>
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Decision Tree

When should we treat gingival recession?

- Esthetic Concerns
- Cervical Lesions
- Advancing Recession
- Pre-prosthetic Augmentation
- Inability to Clean
- Root Sensitivity?

Thin Periodontal Tissues at Risk
Thin Periodontal Tissues at Risk

Esthetic Concerns

Thin Periodontal Tissues at Risk
Question to Ask: Diagnosis

- Is the recession a cosmetic concern?
- Has the recession been progressing?
- Can the patient clean the area?
  - Is there localized marginal inflammation?
  - Is there a caries risk with the exposed cementum?
- Are you planning restorative dentistry?
  - Can the tissues support the trauma?
  - Is the tissue thickness adequate for an ideal result?

- Does the patient have tooth sensitivity?
  - Non-surgical, MGS, restorative
- Are there other local factors involved?
  - Tooth Wear
  - Tooth Position
  - Rotations
  - Orthodontics
  - Etc.

Gingival Recession - Techniques

- Free Gingival Autograft
- Free Connective Tissue Graft
- Pedicle Autografts
  - Lateral
  - Coronal
  - Semilunar
- Subepithelial Connective Tissue Graft
- Guided Tissue Regeneration
- Pouch and Tunnel Technique
- Allografts
**Decision Tree**

**Surgical Assessment for Root Coverage**
- Interproximal bone levels
- Absence of active disease
- Absence of traumatic habits
- Tissue thickness/biotype
- Interdental papilla height
- CEJ Anatomy/Cervical Lesions
- Tooth Position

**Free Gingival Autograft**
- **Indications**
  - Lack of attached tissue
  - Muscle repositioning
  - Difficult grafting/access for other methods
- **Difficulties**
  - Donor site pain
  - Most commonly done in lower anterior
  - Also performed around implants

**Thin Periodontal Tissues at Risk**
Free Connective Tissue Graft

- **Indications**
  - Gingival recession with or without attached tissue
  - Thin periodontal tissues for restorative work
  - Mucogingival defects

- **Difficulties**
  - Donor site pain
  - Limited amount of donor tissue

Isolated Recession Defects

More prominent with:
- Thin biotypes
- Prominent roots
- Bruxism?
Johnson and Waldrop, 2004

- >200 Patients Post Ortho
- 85% had Central Incisors with less than 1.25 length to width
- 30% had width greater than or equal to length
- 83% had papilla height less than 4 mm
- 68% had asymmetry of at least 1 mm
- 90% of the patients might benefit from Esthetic Crown Lengthening
Two Weeks Ago

Today