

TREATING PERIODONTAL DISEASE

IN THE POST ANTIBIOTIC AGE



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WELCOME!

This CE lecture reviews treating periodontal disease treatment in the post-antibiotic age.

Thank you for your time and participation today. I welcome and encourage you to continue the conversation with me at the contact information below.

Be happy, be healthy, and be better,

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Thank you.

TREATING PERIODONTAL DISEASE IN THE POST-ANTIBIOTIC AGE

- The yellow stuff is a combination of:
 - Microorganisms
 - Biocellular matrix
 - Made of polysaccharides and a **protein skeleton**
- That stuff is bad because:
 - It smells bad and looks gross
 - It causes an immune response that leads to tissue breakdown, and an inflammatory cascade that eventually leads to downstream health problems



GET RID OF IT BY



Brushing and flossing when you wake up, before bed, before and after every meal, quit your job if you must



Going to the dentist every day, who uses a combination of instruments and piezo tips that manually remove it



Utilizing Chlorhexidine, floss picks, Waterpiks, Arestin, tongue scrapers, and regular gargling with Grey Goose vodka

- Among the 100+ species of bacteria here, **Gram Negative Anaerobes** (AA and PG, for example) release certain lipopolysaccharide (an inflammation producing **endotoxin**)
- White blood cells (Macrophages, for example), *require* oxygen to eliminate pathogens. In the absence of oxygen, they will produce *pro-inflammatory* cytokines
- These cytokines include IL-1, IL-6, TNF-alpha, etc., all of which lead to tissue damage
- They will also produce histamines, which increase cell permeability and swelling



THE PROBLEM

- As these microorganisms accumulate, they descend into anaerobic environments
- Gram negative anaerobes start to thrive and our oxygen dependent immune cells begin releasing the wrong cytokines
- The pathogenicity of these anaerobes, along with the our own inflammation significantly accelerates tissue damage and poor health outcomes
- It is very difficult to get rid of all of the microorganisms and their substrates, both at home and in the op



As Clinicians, what can we offer patients that:

- Does not damage the implant
- Does not damage the tissue, root, or surrounding bone
- Is less painful and invasive
- Does not rely so heavily on the dexterity of the clinician
- Allows for the patient to regularly comply, despite their own limitations in dexterity
- Does not leave plastic residue
- Is affordable (both for me and for the patient)
- Does not encourage antibiotic resistance
- Effectively disrupts the growth of bacteria and extracellular matrix

NOTES

HOME CARE

Waterpik and interdental brushes rank highest in reducing gingival bleeding, **as adjuncts to brushing**



IN THE OPERATORY

While curettage, piezo, etc., remain the gold standard, several innovative new approaches have been introduced:

Guided Biofilm Therapy

Not shown as better or worse than traditional therapy in terms of efficacy, but shown to have

- Increased patient compliance
- Less damage to tissue

GUIDED BIOFILM THERAPY

01 ASSESS
 PREPARE AND SCREEN EVERY CLINICAL CASE
 • Healthy teeth, caries, gingivitis, periodontitis, healthy implants, osseointegrated, non-implanted
 • Start by rinsing with BioSeal® Plus mouthwash

02 DISCLOSE
 MAKE BIOFILM VISIBLE
 • Highlight to patients the disclosed biofilm and their postoperative areas with EZR® Biofilm Disclosure
 • The color will guide further treatment
 • Once biofilm is removed, calculus is easier to detect

03 MOTIVATE
 GAIN PATIENTS' AND TEAMS' ENGAGEMENT AND TRUST
 • Involve your patients in and together • EZR® non-metallic Pledge Invisors toothbrushes, interdental brushes and AirFlow® Ultra

04 AIRFLOW®
 REMOVE BIOFILM, STAIN AND EARLY CALCULUS
 • Use AIRFLOW® for natural teeth, restorations and implants • Remove biofilm supra and subgingivally up to 10 mm using AIRFLOW® PLUS Light Powder
 • Also remove biofilm from gingiva, tongue and palate • Remove remaining stains or residual using AIRFLOW® CLASSIC Coarse Powder

05 PERIOFLOW®
 REMOVE BIOFILM IN THE PERIODONTIUM
 • Use AIRFLOW® PLUS Powder in narrow teeth in deep pockets and oral fissures and on implants
 • Use new and classic PERIOFLOW® Nozzle

06 PIEZON PS®
 REMOVE REMAINING CALCULUS
 • Use the non-metallic sensitive EZR® PERIOFLOW® PS instrument supra and subgingivally up to 10 mm
 • Clean > 20 mm pockets with non-metallic
 • Use EZR® PERIOFLOW® PS instrument around implants up to 3 mm subgingivally and on restorations

07 CHECK
 MAKE YOUR PATIENT SMILE
 • Do a final check for remaining biofilm
 • Ensure calculus is fully removed
 • Accurately diagnose caries
 • Protect with fluoride

08 RECALL
 HEALTHY PATIENT = HAPPY PATIENT
 • Schedule recall frequency according to risk assessment
 • Ask your patient if he or she liked the treatment

Perio Protect

Home care strategy in which Hydrogen Peroxide is regularly delivered into the sulcus

- Hydrogen Peroxide disrupts the protein skeleton and proteoglycan aggregate
- It breaks down to oxygen within the sulcus, which
 - Allows macrophages to work effectively
 - Lyses the cell wall of gram negative anaerobes
 - Converts the environment away from anaerobic
- Non-invasive, atraumatic, and can be used every day



HybenX

Oral Tissue Decontaminant

- Works through "Desiccation Shock Debridement" Technology
- In Lieu of antibiotic delivery in continually bleeding localized pockets, offers innovative "in-op" alternative



NOTES
