PERIODONTIUM AND PERIODONTAL DISEASES

PERIODONTIUM

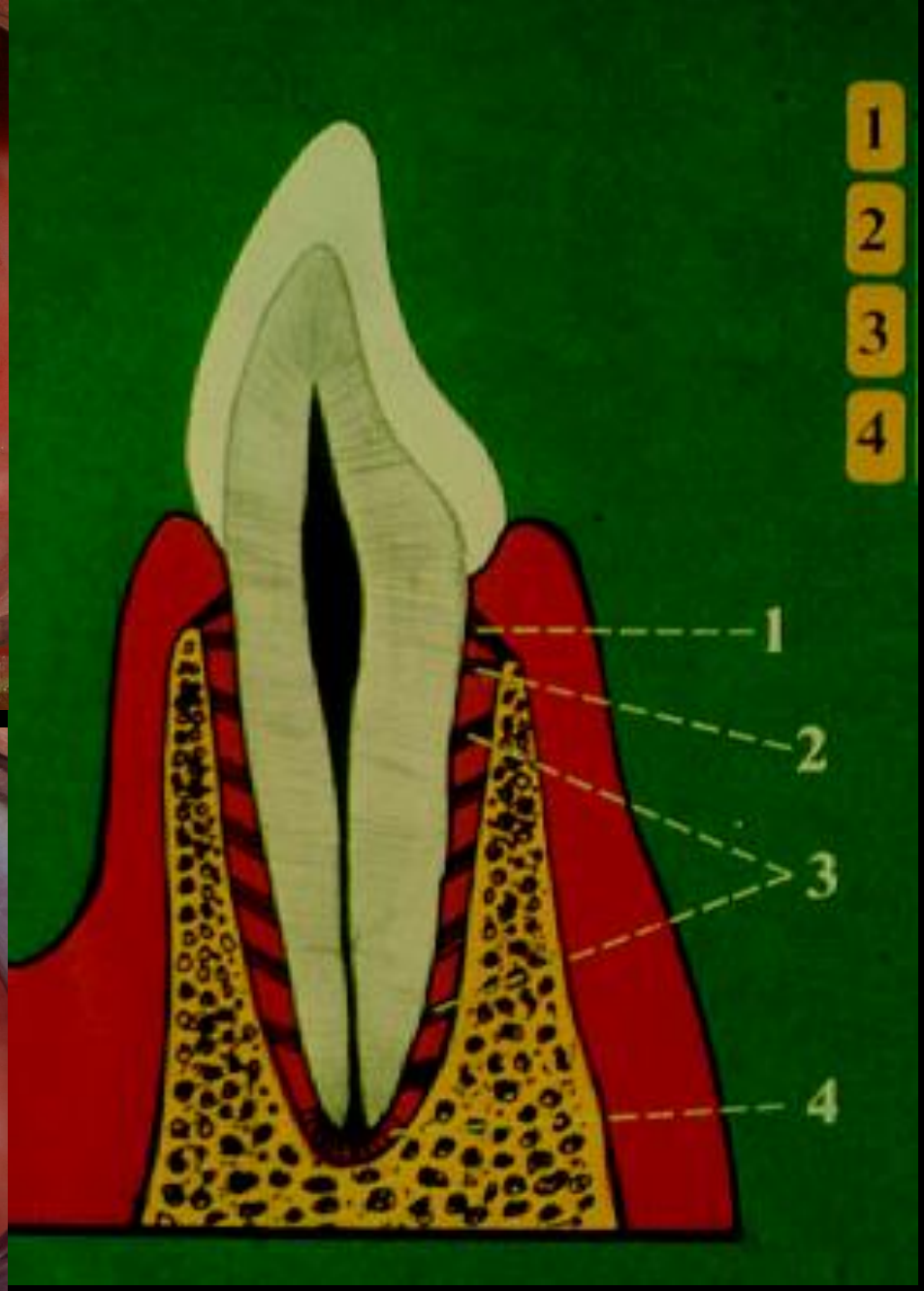
A COMPOSITION OF TOOTH SUPPORTING TISSUES

1 . GINGIVA

2. CEMENTUM

3. PERIODONTAL LIG.

4. ALVEOLARI BONE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DENTALI PLAQUE - THE MAJOR ETIOLOGIC FACTOR OF ALL KIND OF PERIODONTAL DISEASES

Plaque is natural and exists in harmony with the host in health. Maintenance of health depends on the balance of the homeostatic relationship between the bacterial challenge and the host response.

LARGE MASS OF SUPRAGINGIVAL PLAQUE AND CALCULUS

THE SUBGINGIVAL PLAQUE IS TOTALLY INDEPENDENT OF THE SUPRAGINGIVAL ORAL ENVIRONMENT IT FORMS A BIOFILM, THAT CAN ONLY BE REMOVED BY PROFESSIONAL MECHANICAL DEBRIDEMENT


A FOGÁGY ÉS A FOGÁGY BETEGSÉGEI

PARODONTIUM

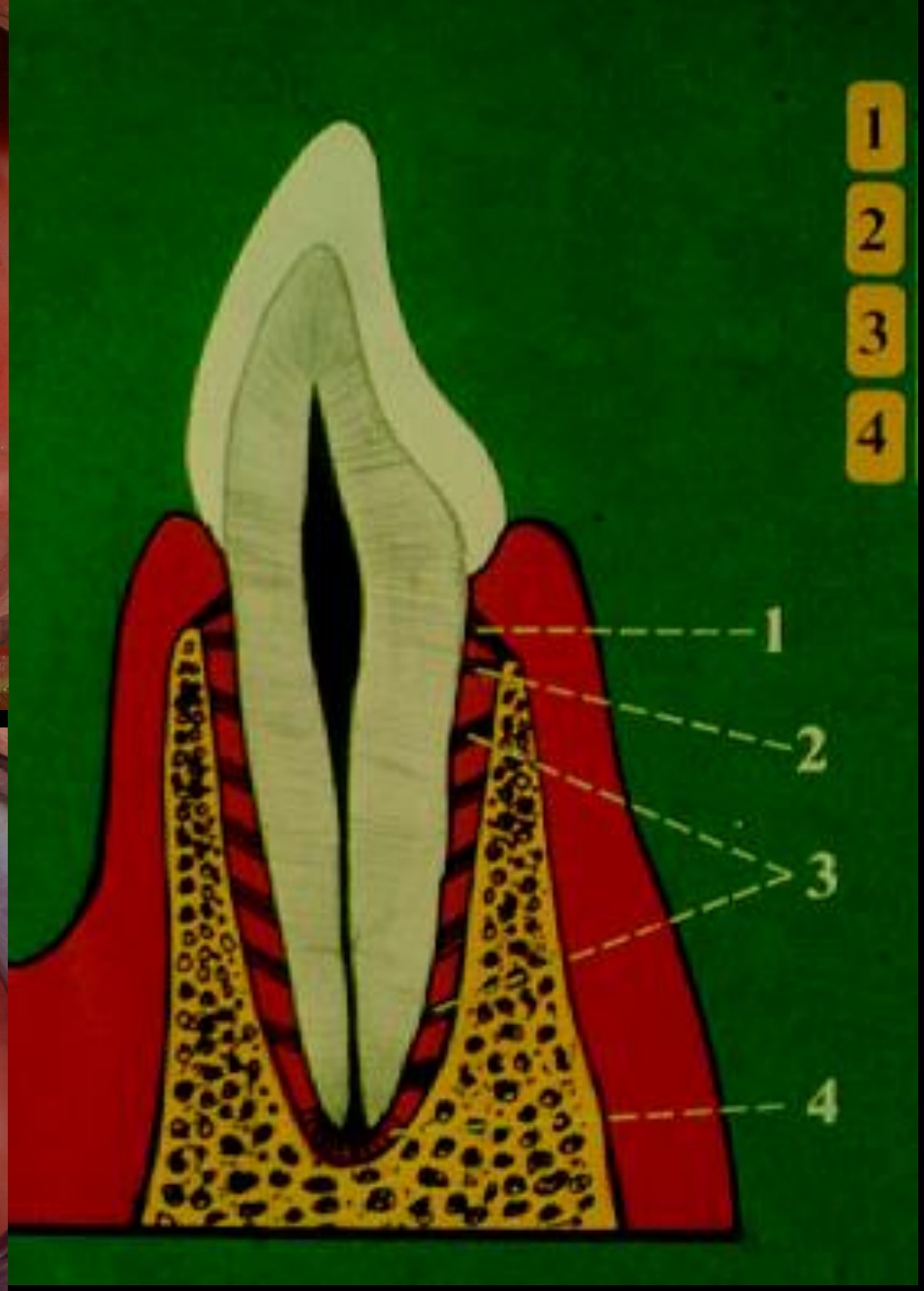
A FOGAKAT RÖGZÍTŐ SZÖVETEK EGYÜTTESE

1 . GINGIVA

2. CEMENT

3. GYÖKÉRHÁRTYA

4. ALVEOLARIS CSONT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DENTALIS PLAKK - MINDEN FOGÁGYBETEGSÉG OKA

Miért lesz valakinek ínygyulladása vagy parodontitise???

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Miért nem lesz valakinek ínygyulladása vagy parodontitise???

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parodontológia

DENTALIS PLAKK (BIOFILM) - MINDEN FOGÁGYBETEGSÉG OKA

A bakteriális plakk a természetben teljes harmóniában élhet az egészséges szervezettel.

Az egészséges állapot fenntartása a bakteriális hatások és a szervezet normál védekező mechanizmusainak egyensúlyától függ.

DISEASE **is the consequence of this balanced relationship breaking down,**

-provoked by either changes to the magnitude or nature of the microbial challenge

-*or* the scale and appropriateness of the host response

(Socransky et al. 1998).

Most bacterial species currently implicated in periodontitis can be found in periodontally healthy subjects in low numbers.

In some geographical regions, some species or clones are infrequently detected in periodontal health, and therefore could be considered as not belonging to the resident microflora in these populations

(Van Winkelhoff et al. 2002).

BACTERIAL BIOFILM

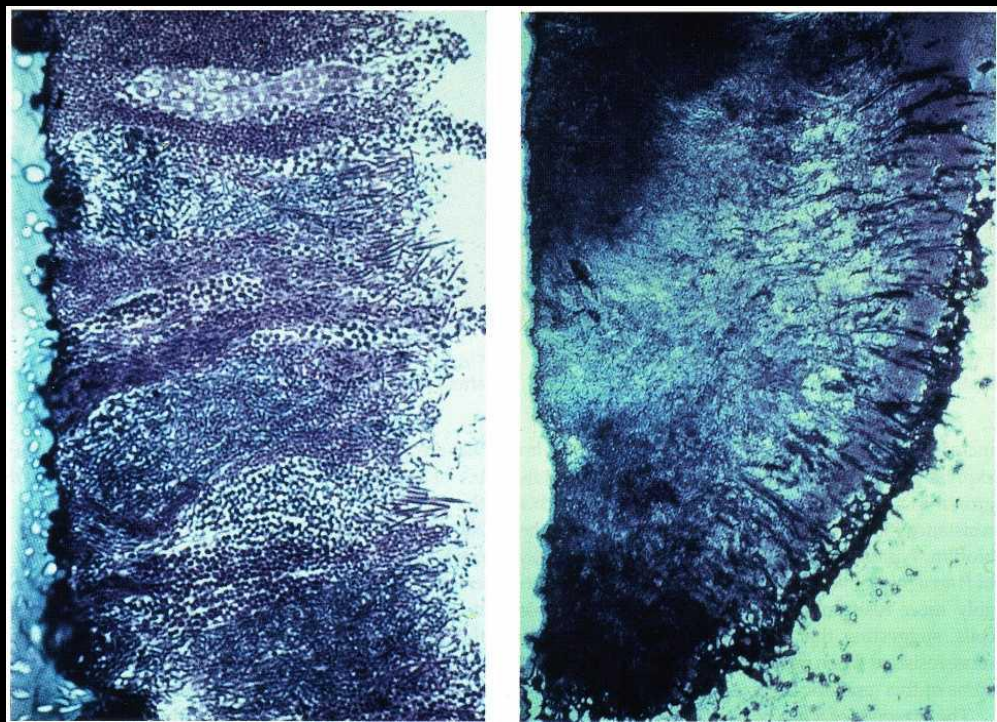
IS MADE UP OF :

„FRIENDLY COMMENSAL BACTERIA AND HOSTILE PERIODONTOPATHOGENIC STRAINS

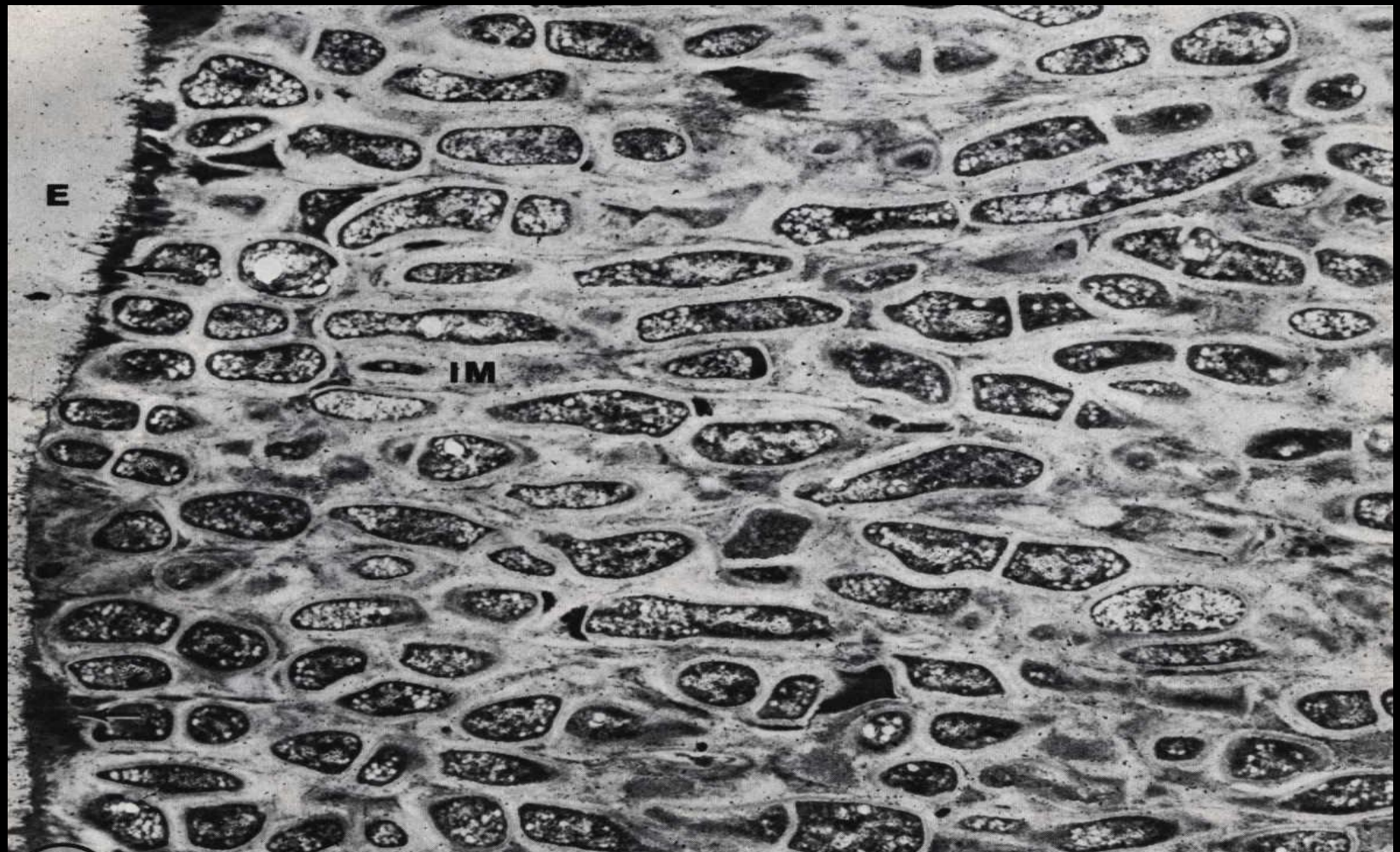
THE MANIFESTATION OF PERIODONTAL BREAKDOWN IS DEPENDENT ON THE HOST'S SUSCEPTIBILITY AND THE VIRULANCE OF THE BIOFILM

BIOFILMS of oral bacteria are also more tolerant of antibiotics (e.g. amoxycillin, doxycycline, minocycline, metronidazole) than planktonic cells (Larsen 2002, Socransky & Haffajee 2002, Noiri et al. 2003),

BIOFILMS of *P. gingivalis* tolerated 160 times the MIC of metronidazole that had been determined for planktonic cells (Wright et al. 1997),



The age of the biofilm can also be a significant factor; older biofilms (72 h) of *S. sanguinis* were more resistant to chlorhexidine than younger (24 h) biofilms (Millward & Wilson 1989).



THERE CAN BE A NULL STATE BETWEEN BIFILM AND HOST – NO OVERT INFLAMMATORY REACTION

OR

INFLAMMATION

DENTAL PLAQUE

GINGIVITIS

PERIODONTITIS

GINGIVITIS

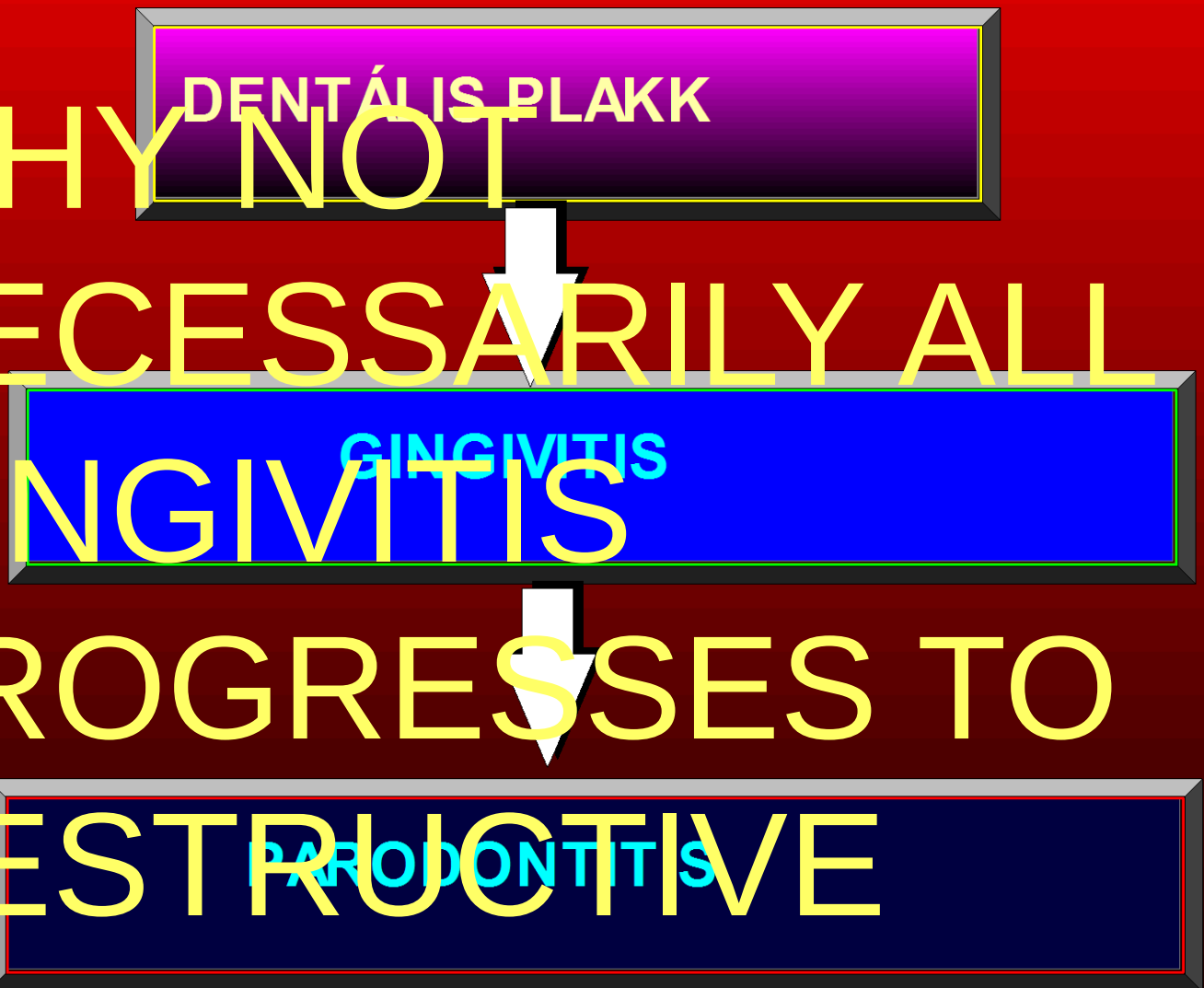
DISEASE OF THE FREE GINGIVAL MARGINE

PROTECTION AGAINST PLAQUE

PERIODONTITIS

IRREVERSIBLE DAMAGE OF THE ATTACHMENT APPARATUS

THE CONSEQUENCE OF THE INADEQUATE GINGIVAL PROTECTION



WHY NOT NECESSARILY ALL GINGIVITIS PROGRESSES TO DESTRUCTIVE PERIODONTITIS????

DENTAL PLAQUE

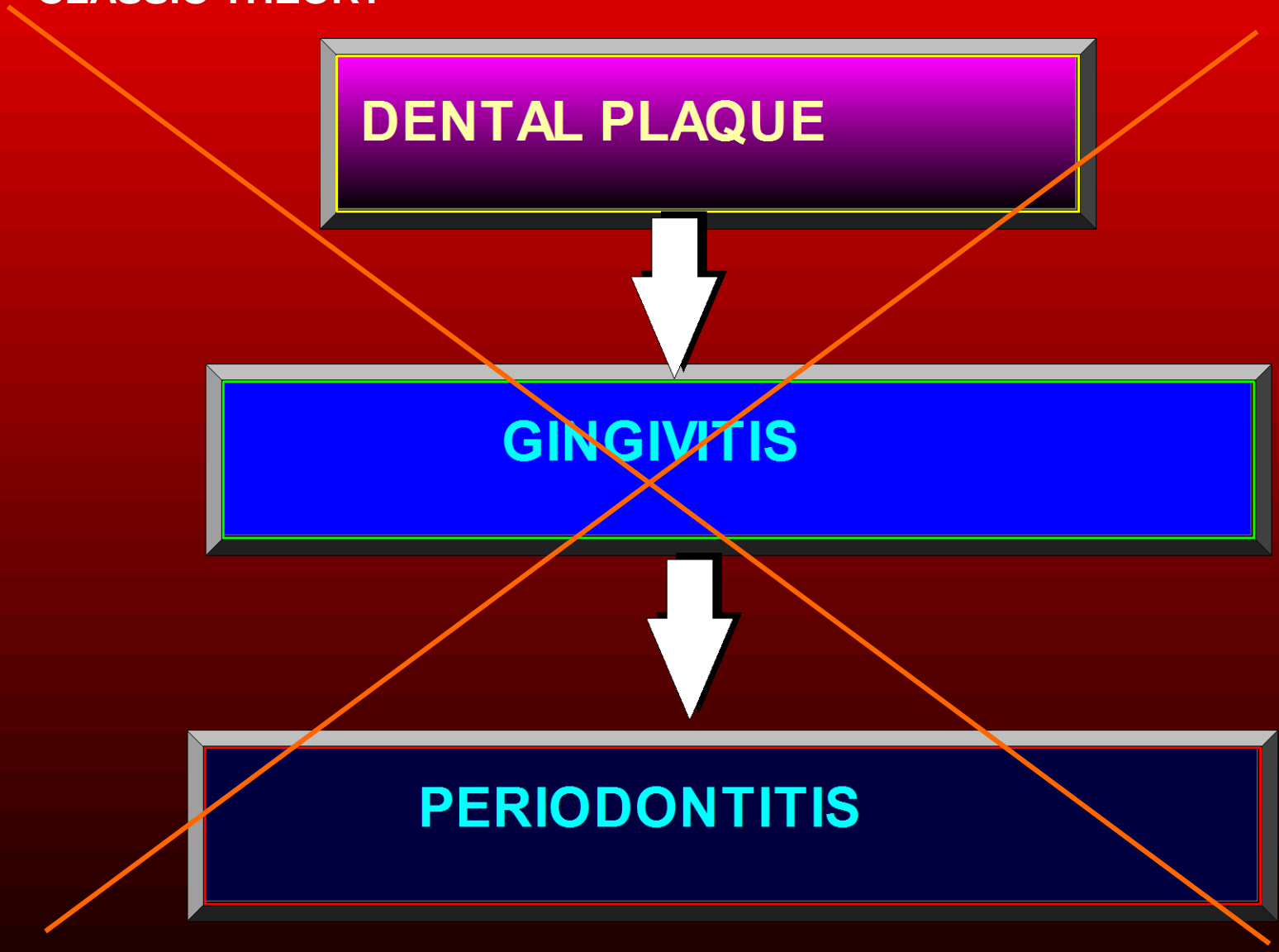
GINGIVITIS

PERIODONTITIS

SEVERAL LOCAL AND SYSTEMIC FACTOR CAN MODIFY THE COURSE OF INFLAMMATION AND THE DEGREE OF TISSUE DESTRUCTION

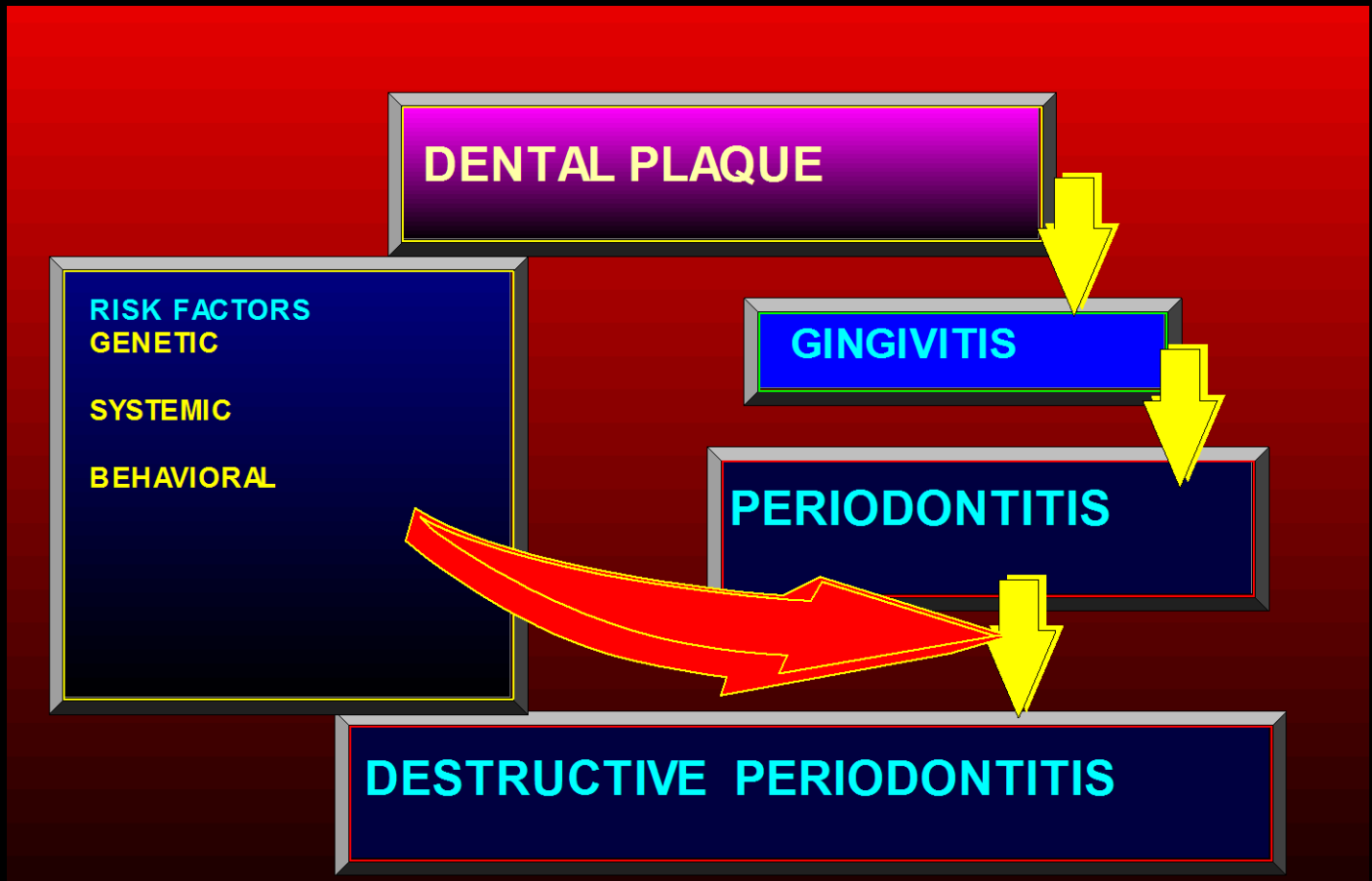
SEVERAL SYSTEMIC AND LOCAL MODIFYING FACTORS

CLASSIC THEORY



SEVERAL SYSTEMIC AND LOCAL MODIFYING FACTORS

DENTAL PLAQUE IS NECESARRY BUT NOT SUFFICIENT ETIOLOGIC FACTOR OF DESTRUCTIVE PERIODONTITIS



RISK FACTORS:

GENETICS
1(IL-1)
TNF

SYSTEMIC
ENDOCRINE
CARDIOVASCULAR
IMMUNOLOGICAL

BEHAVIORAL
STRESS
DIET
SMOKING
WAY OF LIFE

GINGIVITIS

pristine gingiva absolutely healthy gum

clinically healthy gum

Reduced periodontium

Clinically non-inflamed gum

After successful periodontal Tx.

Clinically absolutely non-inflamed gum

Gingival recession

Clinically controlled periodontitis

actually non inflamed condition

LOCAL PLAQUE RETENTIVE FACTORS

HEAVY SUPRAGINGIVAL PLAQUE AND DENTAL CALCULUS DEPOSITION

HEAVY SUPRAGINGIVAL DENTAL CALCULUS DEPOSITION MECHANICALLY SEPARATES FRONT TEETH

FAULTY RESTAURATIONS

SEEMINGLY FAIR SUPRAGINGIVAL ORAL HYGIENE WITH HEAVY SUBGINGIVAL CALCULUS DEPOSITION

PERIODONTITIS

SEVERE ALVEOLAR BONE LOSS

THE CLASSIFICATION OF PERIODONTAL AND PERI-IMPLANT DISEASES AND CONDITIONS

Based on the concessus reports by the *American Academy of Periodontology (AAP) European Federation of Periodontology (EFP) World Workshop on the Classification of Periodontal and Peri-implant Diseases and Conditions* (2017)

Az American Academy of Periodontology (AAP) és az European Federation of Periodontology (EFP) *World Workshop on the Classification of Periodontal and Peri-implant Diseases and Conditions*

STAGING- GRADING summary

STAGE - I - IV OF PERIODONTITIS is based on

- severity (primarily periodontal breakdown with reference to root length and periodontitis-associated tooth loss),
- complexity of management (pocket depth, infrabony defects, furcation involvement, tooth hypermobility, masticatory dysfunction)
- extent (localized or generalized).
- **GRADE OF PERIODONTITIS** is estimated by
- progression rate direct or indirect evidence of in three categories: slow, moderate and rapid progression (Grade A-B-C).
- Risk factors are grade modifier.




Grades: Evidence or risk of rapid progression[4], anticipated treatment response[5]

i. Grade A: Slow rate of progression
ii. Grade B: Moderate rate of progression
iii. Grade C: Rapid rate of progression



HOW TO TREAT PERIODONTAL DISEASE ????




THE GOAL OF PERIODONTAL THERAPY ????

THE MAJOR GOAL OF ANY CAUSE RELATED PERIODONTAL TREATMENT IS:

TO CLEAN TEETH AND RESTORE ORAL HYGIENE

THE MAJOR GOAL OF ANY CAUSE RELATED PERIODONTAL TREATMENT IS:

TO STOP AND ARREST THE PRGRESSION OF DISEASE

THE MAJOR GOAL OF ANY CAUSE RELATED PERIODONTAL TREATMENT IS:

TO MAINTAIN LONG LASTING RESULTS AND HEALTH IN ORAL CAVITY

TOP PRIORITY IS TO ANTICIPATE THE OCCURANCE OF DISEASE:

PRIMARY AND SECONDARY PREVENTION

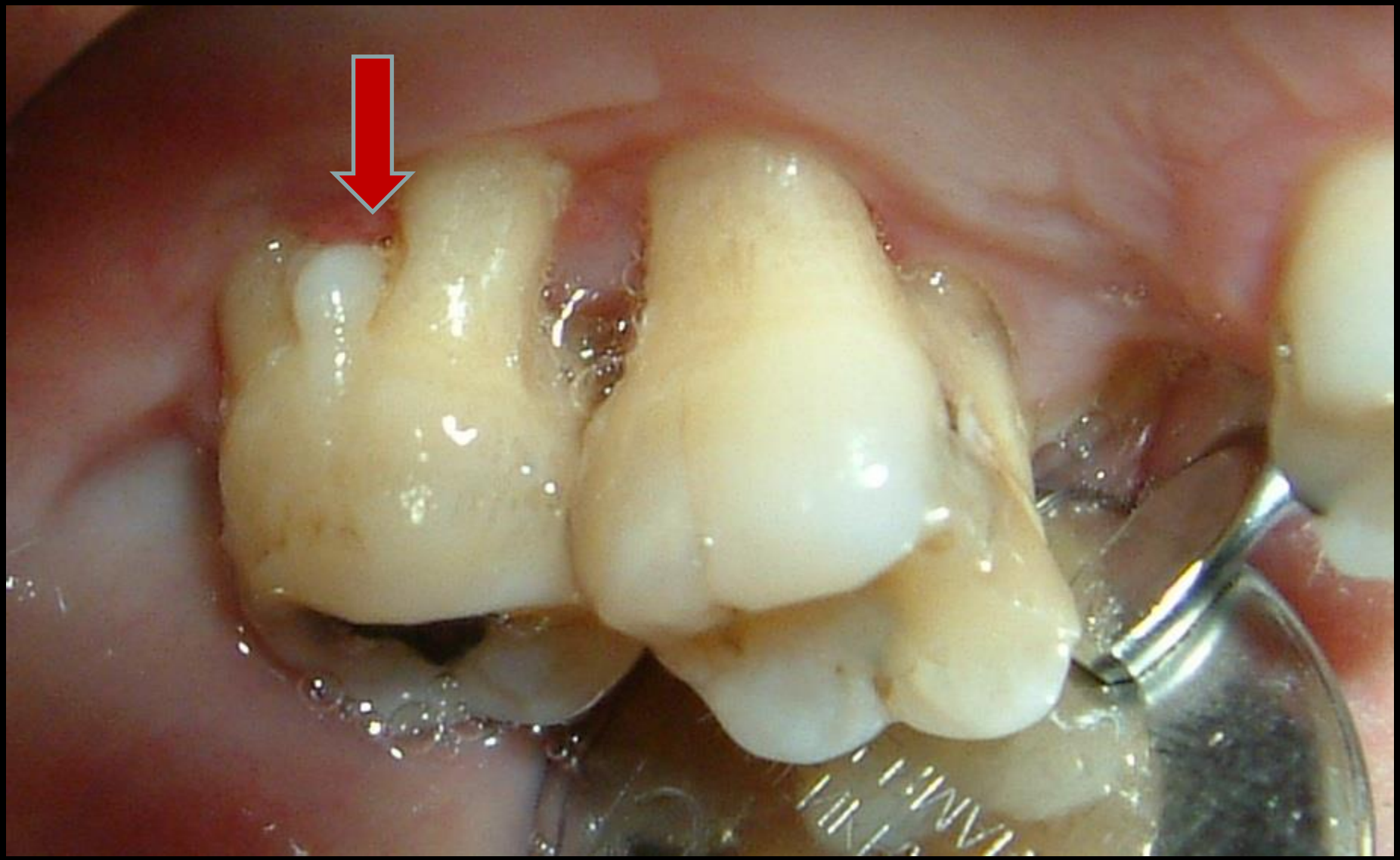
Periodontitis

Fine et al. 2018 link | Needleman et al. 2018 link | Billings et al. 2018 link

a. **Stages:** Based on Severity[1] and Complexity of Management[2]
   - Stage I: Initial Periodontitis
   - Stage II: Moderate Periodontitis
   - Stage III: Severe Periodontitis with potential for additional tooth loss
   - Stage IV: Severe Periodontitis with potential for loss of the dentition

b. Extent and distribution[3]: localized; generalized; molar-incisor distribution


baseline
After 12 days



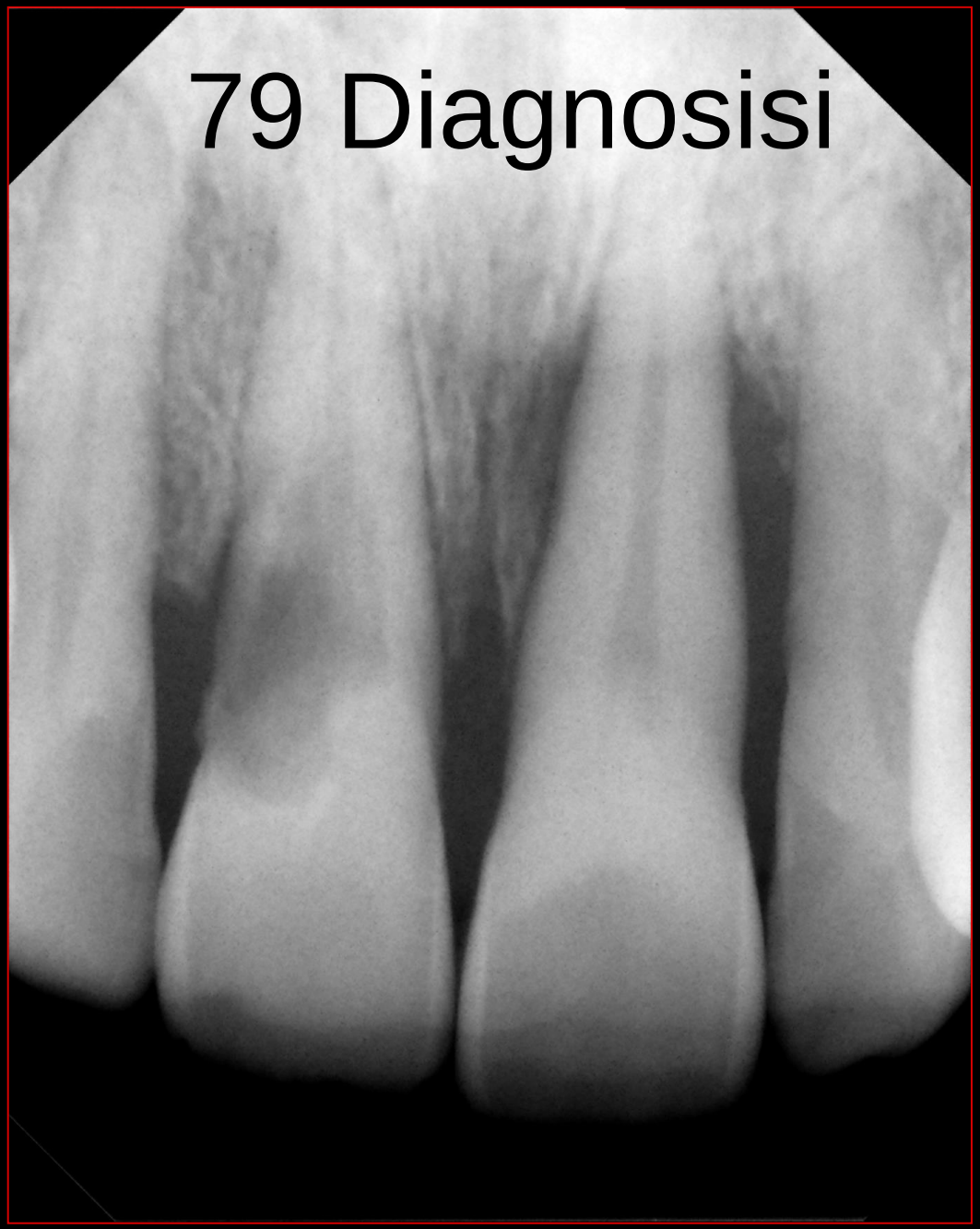


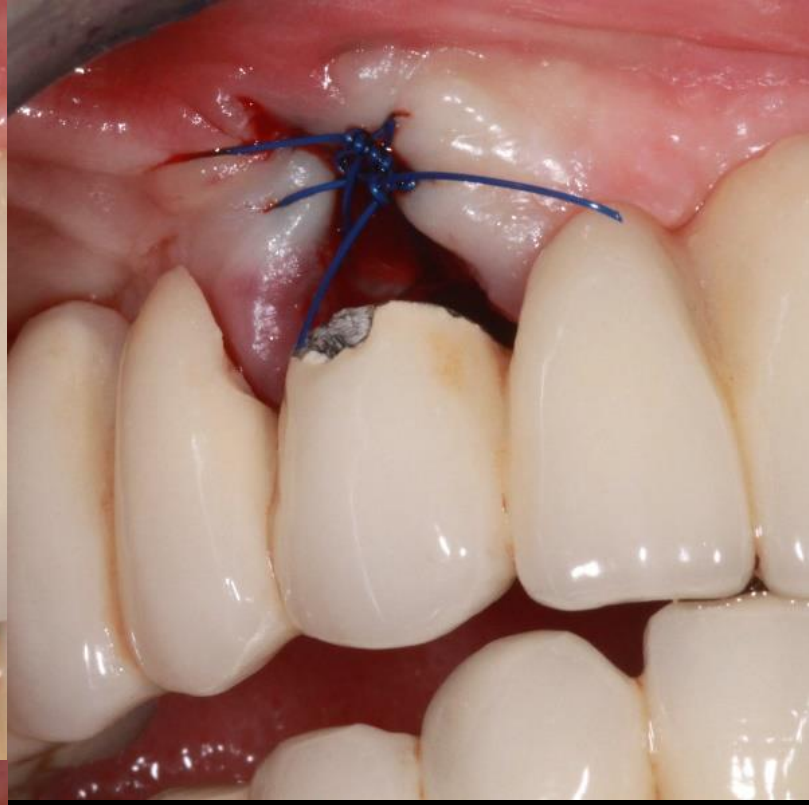
45 years old male

2010. 02.25.

2010. 03.10

79 Diagnosisi




THE INFECTED PERIODONTAL POCKET CAN BE A DENTAL FOCUS

Periodontal Diseases

Prevention and patient management

Global Periodontal Health Project

GINGIVAL/ PERIODONTAL HEALTH

- Healthy gums
- Good oral hygiene
- Minimal bleeding on probing (< 10% of sites)
- **No periodontal pockets (≤ 3 mm)**
- No bone loss on radiograph

GINGIVITIS

- Red and swollen gums
- Plaque and/or calculus
- Bleeding on probing (≥ 10% of sites)
- **Shallow periodontal pockets (≤ 4 mm)**
- No bone loss on radiograph

Initial to Moderate PERIODONTITIS

STAGES 1–2

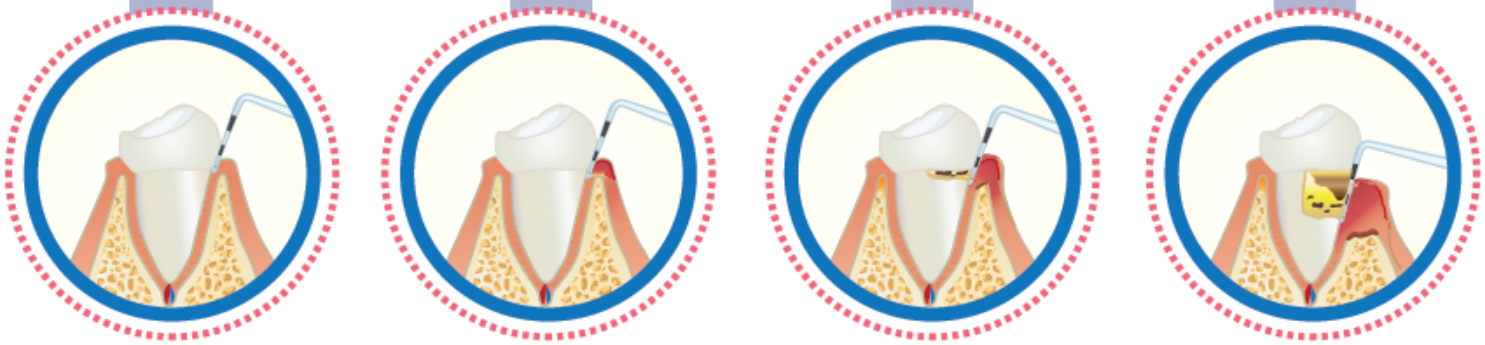
- Red and swollen gums
- Plaque and/or calculus
- Generalized bleeding on probing
- **Periodontal pockets (4–5 mm)**
- Bone loss ≤ 1/3 of root length on radiograph

Severe PERIODONTITIS

STAGES 3–4

- Red and swollen gums
- Plaque and/or calculus
- Generalized bleeding on probing
- **Deep periodontal pockets (≥ 6 mm)**
- Bone loss > 1/3 of root length on radiograph

MEASURING POCKET DEPTH USING A PROBE



MILD
TOTAL SCORE = 3

Q1	Younger than 35 years old	0
Q2	Non-smoker	0
Q3	No diabetes	0
Q4	No tooth loss due to periodontitis	0
Q5	Inadequate oral hygiene with visible/detectable plaque covering 10–50% of tooth sites	1
Q6	Bleeding on probing: 10–50% of tooth sites	1
Q7	Probing depth: 4–5 mm	1
	TOTAL SCORE	3

MODERATE
TOTAL SCORE = 6

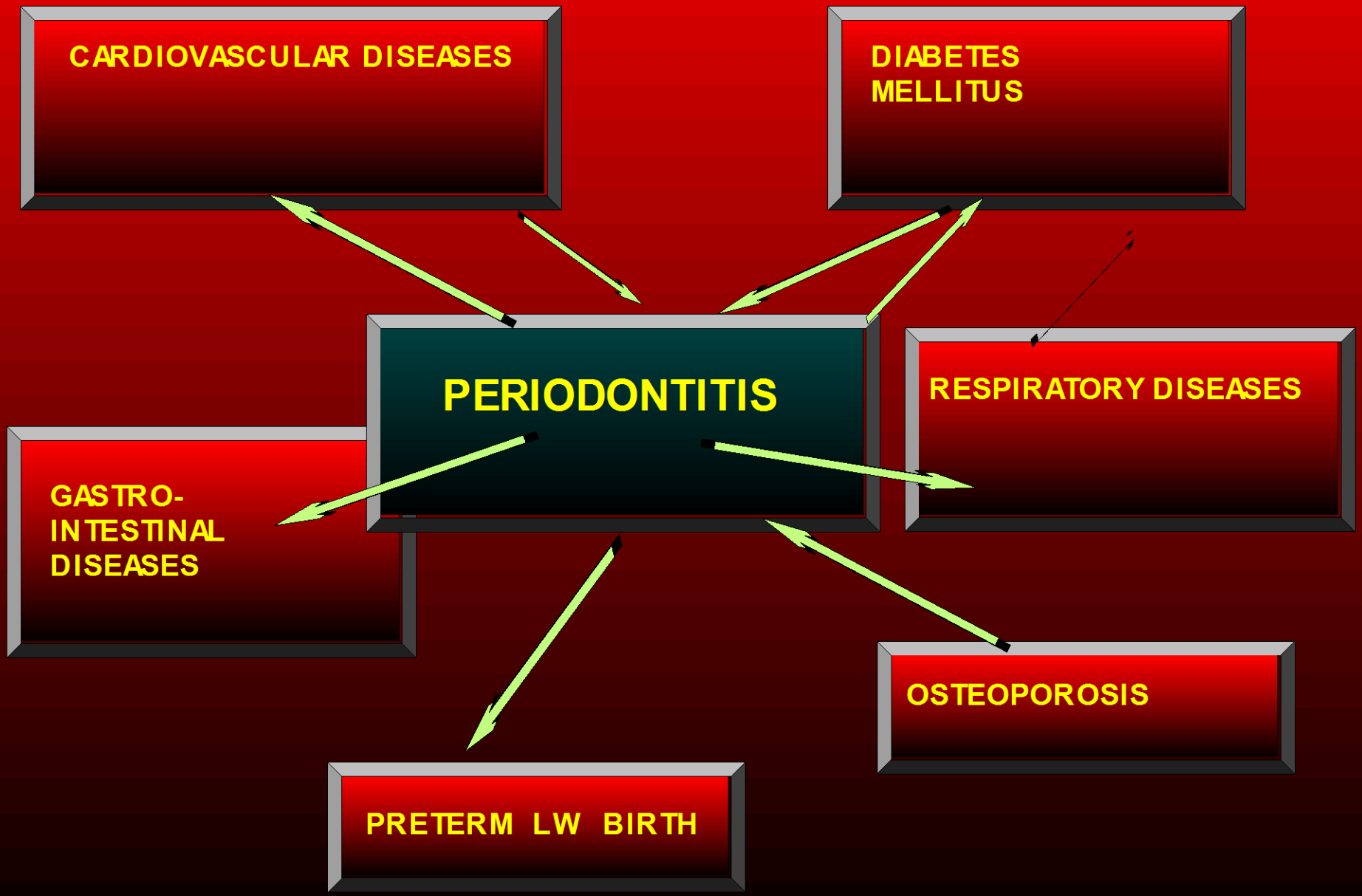
Q1	Aged between 46 and 65 years old	2
Q2	Smoker: < 10 cigarettes per day	1
Q3	No diabetes	0
Q4	No tooth loss due to periodontitis	0
Q5	Inadequate oral hygiene with visible/detectable plaque covering 10–50% of tooth sites	1
Q6	Bleeding on probing: 10–50% of the tooth sites	1
Q7	Probing depth: 4–5 mm	1
	TOTAL SCORE	6

SEVERE
TOTAL SCORE = 16

Q1	Older than 65 years old	3
Q2	Smoker: 10–15 cigarettes per day	2
Q3	Diabetes: well controlled (HbA1c < 7%	1
Q4	Tooth loss due to periodontitis	3
Q5	Poor oral hygiene with visible/detectable plaque covering > 50% of tooth sites	2
Q6	Bleeding on probing: > 50% of tooth sites	2
Q7	Probing depth: generalized tooth sites > 5 mm	3
	TOTAL SCORE	16

PATIENT WITH

Plaque-induced gingivitis	Initial to moderate periodontitis	Severe periodontitis


CARDIOVASCULAR DISEASES
DIABETES MELLITUS
PERIODONTITIS
RESPIRATORY DISEASES
GASTRO-INTESTINAL DISEASES
OSTEOPOROSIS
PRETERM LW BIRTH