Managing your Periodontal Patients

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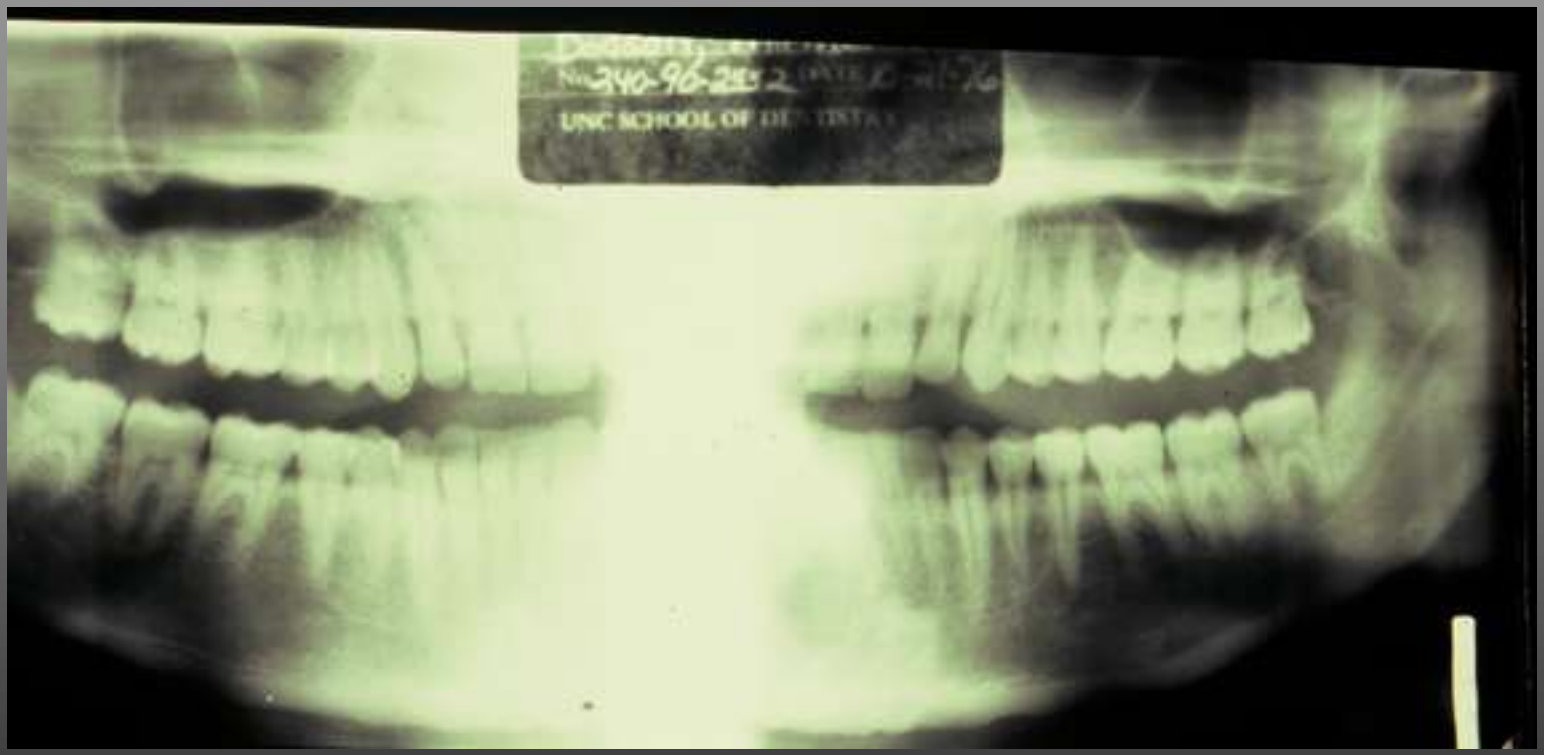
Progression of Periodontal Disease

After the age of 20 years, 0.1mm to 0.2mm is a justifiable range reflective of the mean annual rate of progression for untreated periodontal disease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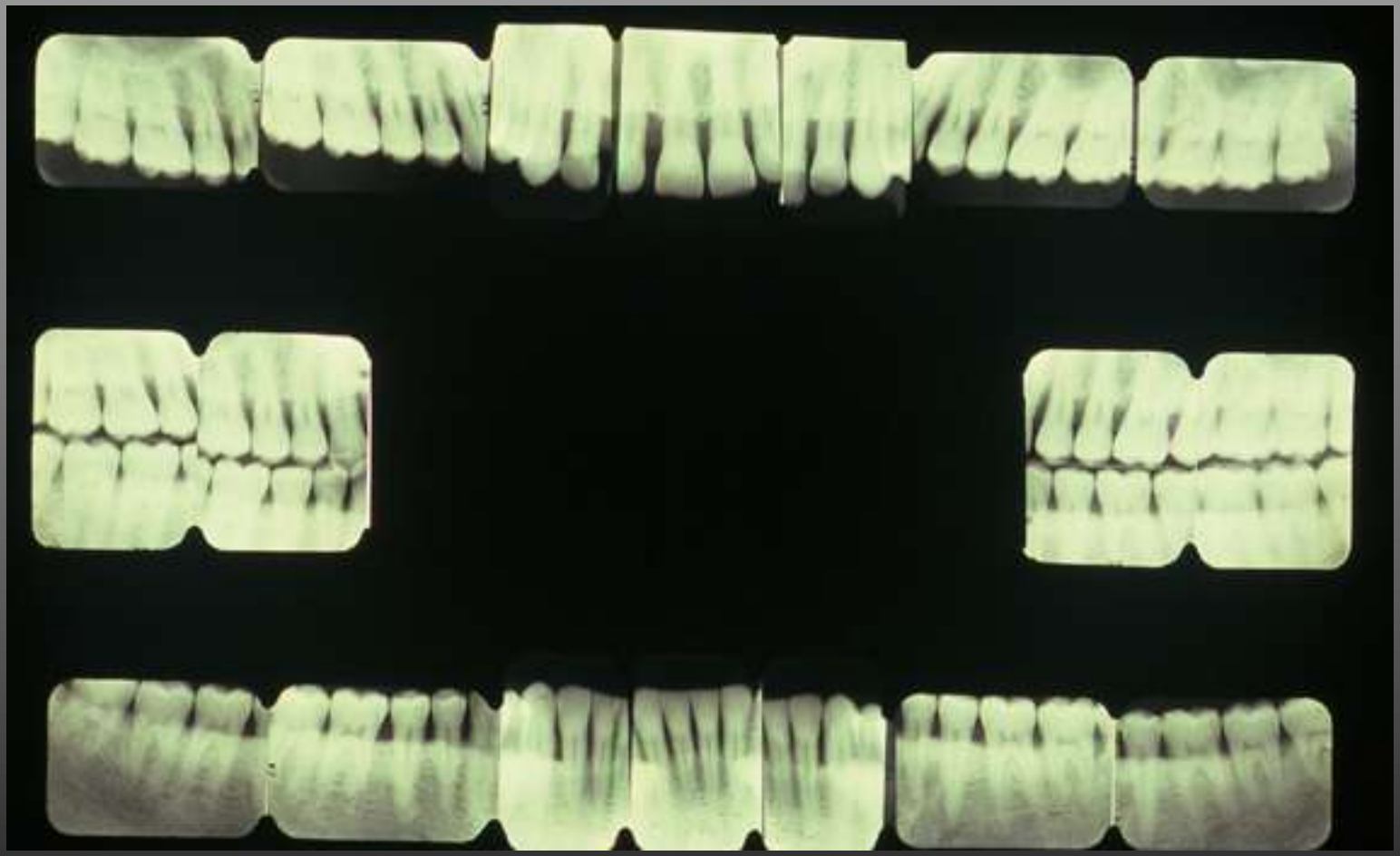

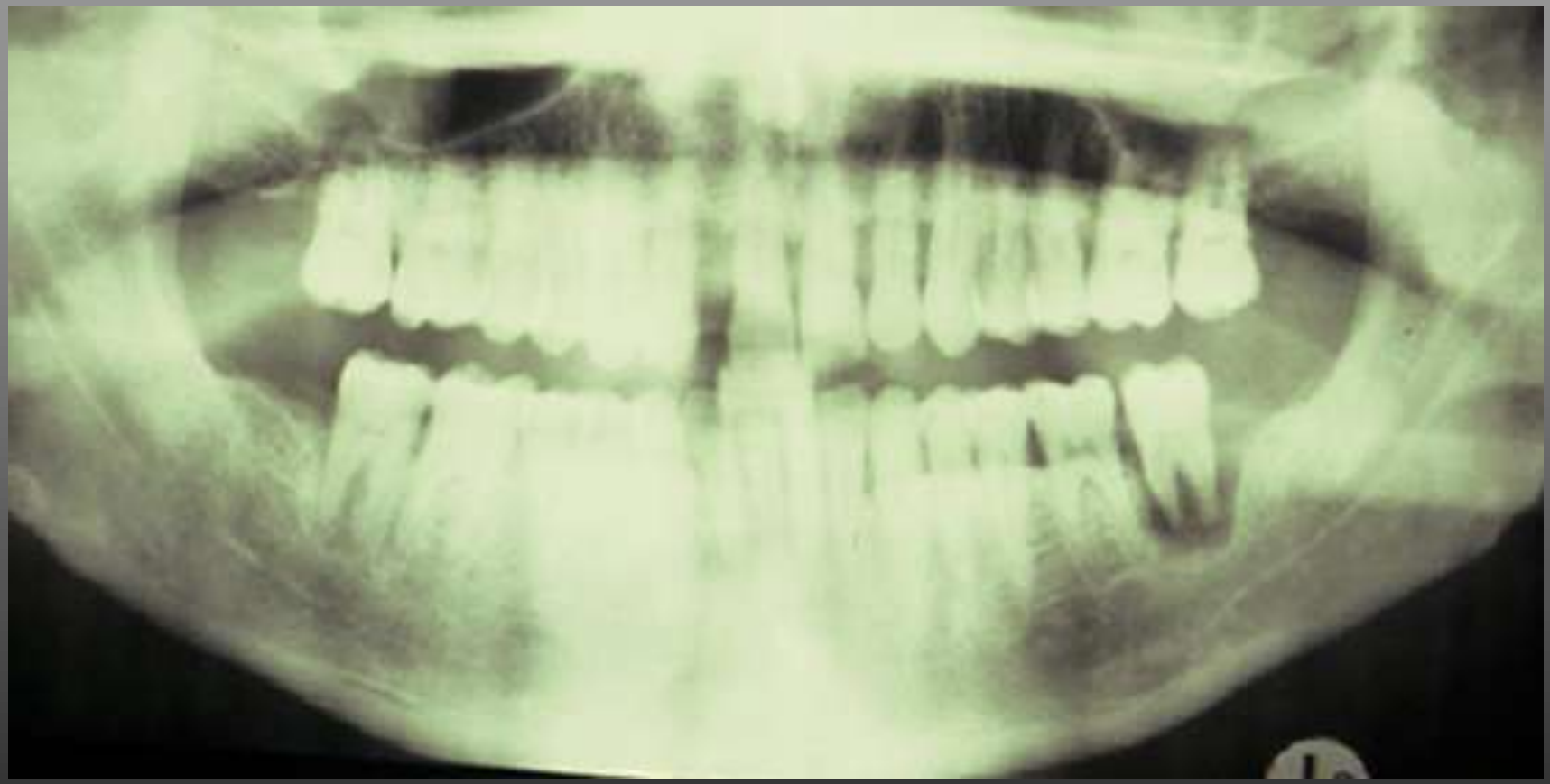

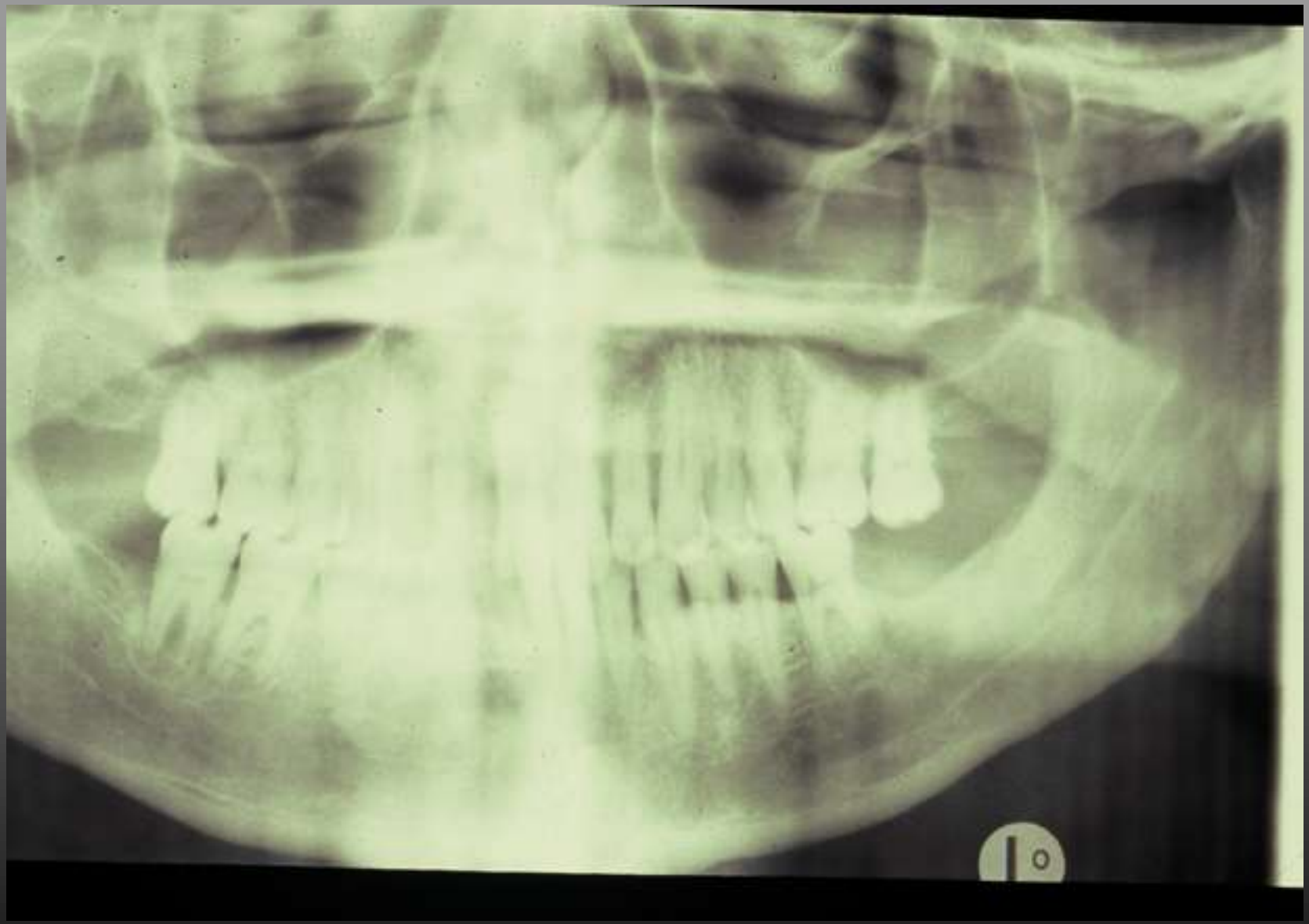
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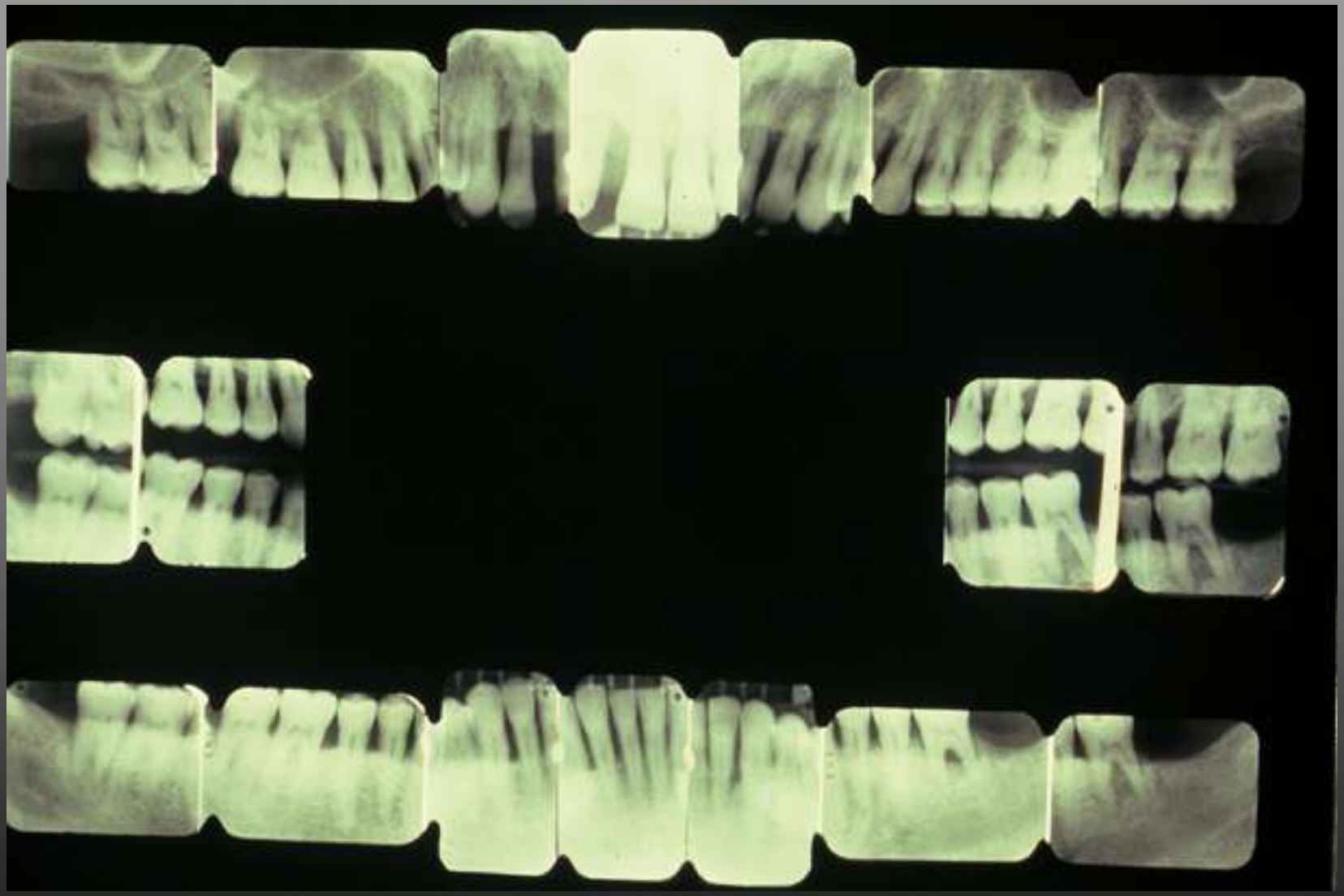

The Value of Treatment

- Patients who have untreated advanced periodontal disease will lose on average 1 tooth every 3 years
- Patients who have their advanced periodontal disease treated and who continue to be well maintained will lose on average 1 tooth every 13 years

DETERMINATION OF PROGNOSIS

- CLINICAL
  - PROBING ATTACHMENT LEVELS
  - PROBING POCKET DEPTHS
  - BLEEDING SCORES
  - PLAQUE SCORES
  - MOBILITY
  - SUPPURATION

Patient: 0212-1946 | MICHAEL DUMONT | Perio Exam Selection: 09/05/2006

T#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	T#
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CAL	3 3 6		0 0 0	5 5 5	3 5 5	5 5 4	5 3 4	5 4 6	5 5 5	5 6 5	3 5 3	3 6 4		5 3 4	0 0 0		CAL
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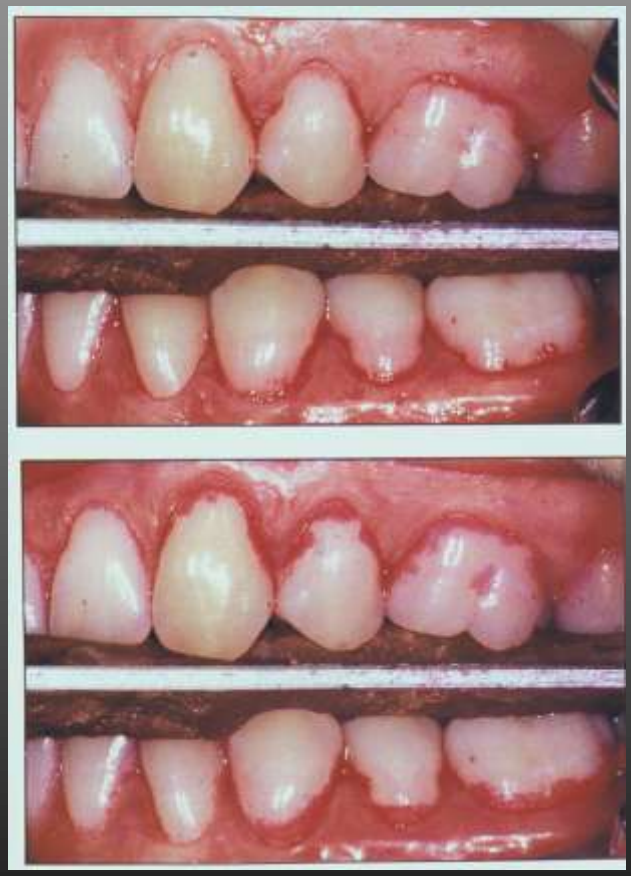
T#	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	T#

BLEEDING SCORES

POOR PREDICATOR-GOOD NEGATIVE PREDICTOR

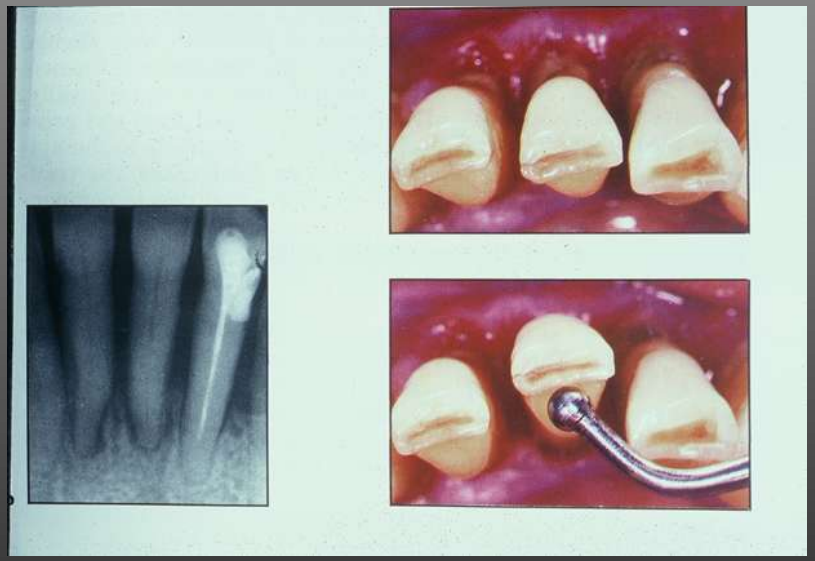
Plaque Scores

- Not a good indicator of disease activity
- May have some motivational benefit
- Only cursory examination required



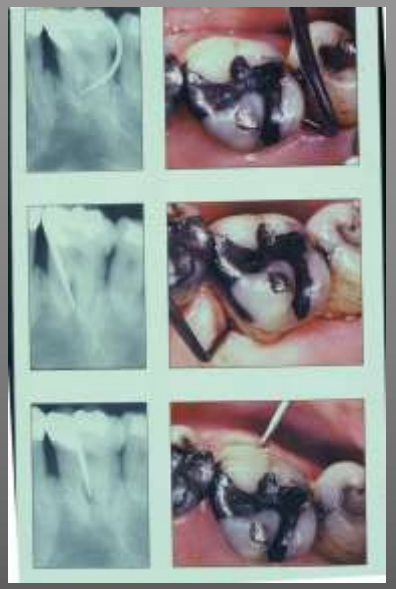
Mobility

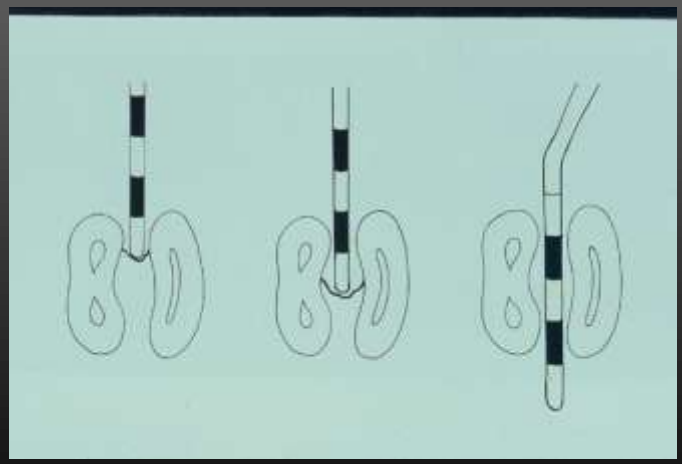
- Grade I - up to 1mm mobility in B-L direction
- Grade II - > 1mm mobility in B-L direction
- Grade III - vertical component to mobility
- Check for an occlusal component to any mobility



Furcations

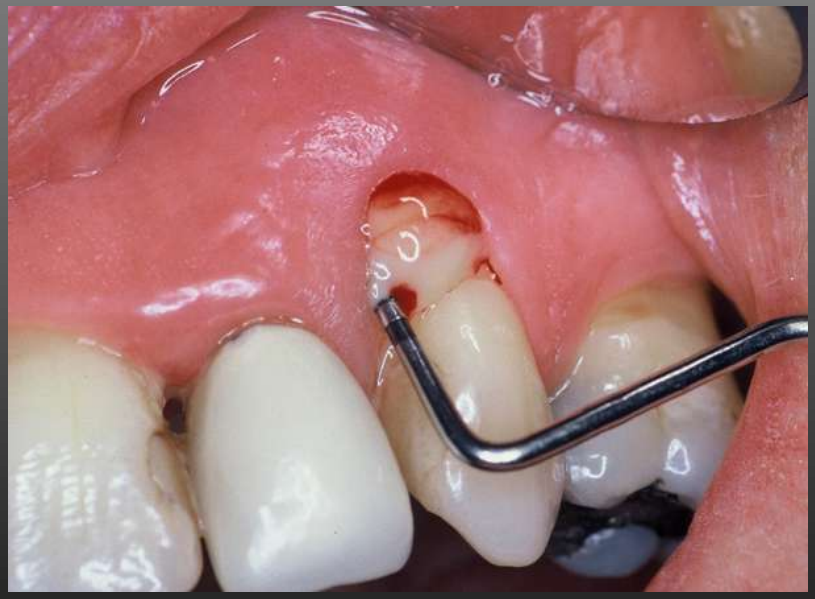
- Furcations are classified as Class I,II,III depending on horizontal extent of bone loss
- Tooth loss studies tell us furcated teeth are lost at a rate of several fold that of non furcated teeth





Suppuration

- Never Good!



Objective 1

- Getting better results from non surgical therapy
  - basic instrumentation
  - extra instruments
  - allow enough time
  - must use local anaesthetic

BASIC INSTRUMENTATION

- Ultrasonic Instruments
  - FSI 10 - gross deposits
  - Slimline tips
    - left
    - right
    - straight (universal!!)

Basic Instrumentation

- Gracey Currettes:
  - 1/2 all surfaces of anterior teeth
  - 5/6 palatal and buccal surfaces of posterior teeth
  - 11/12 mesial surfaces of posterior teeth
  - 13/14 distal surfaces of posterior teeth
  - SHARPENING STONE

Effectiveness of Root Planing

- Removal of all calculus from all root surfaces is seldom achieved
  - Increasing pocket depth, increasing % of root surface exhibiting residual calculus
  - % of root surfaces exhibiting residual calculus
    - without surgical access - 17-69%
    - with surgical access - 14-24%

What results can we expect from root planing?

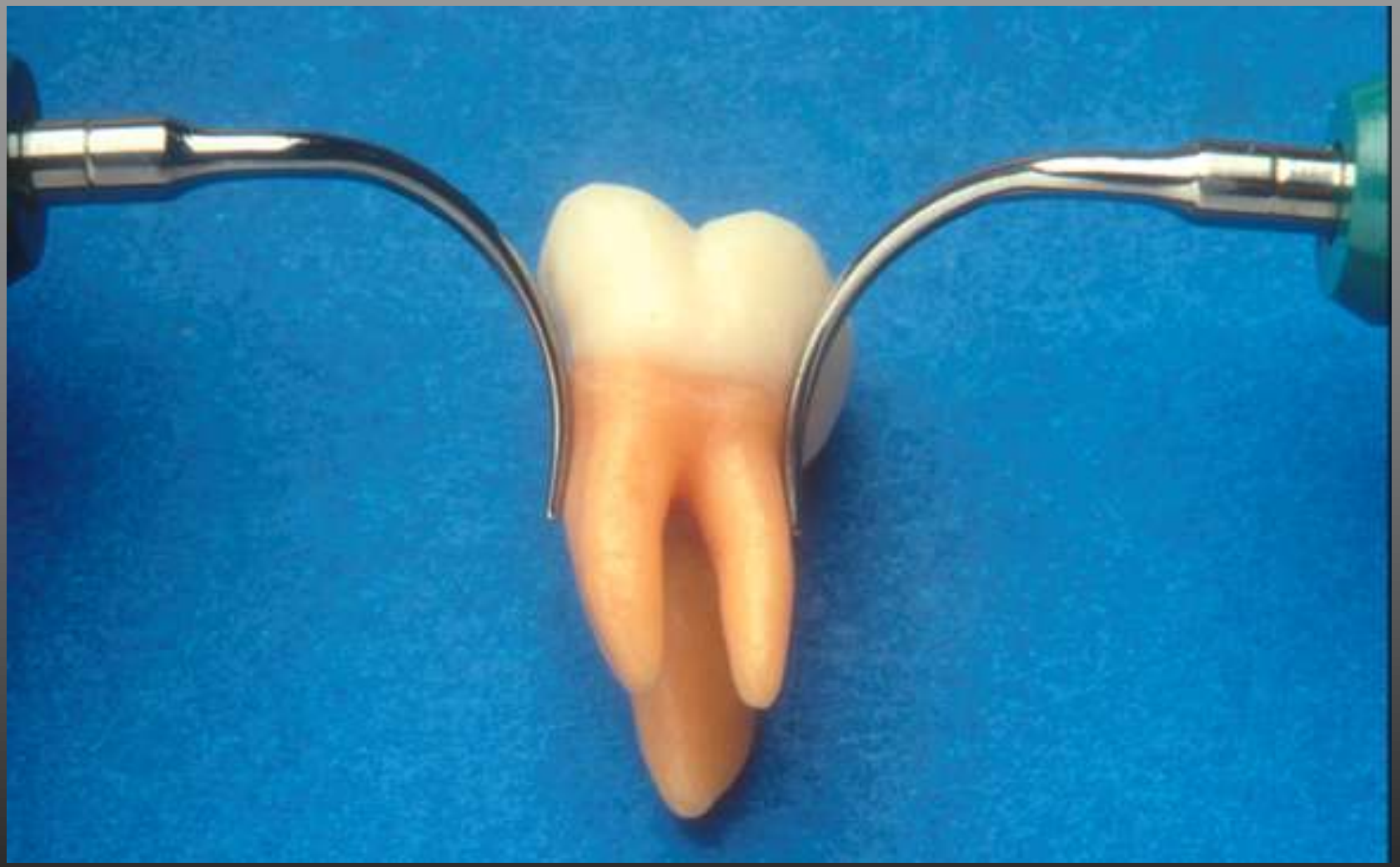
- For probing depths initially 4-6mm scaling and root planing results in pocket reduction ranging from 0.71-1.26mm
- In probing depths >6mm, scaling and root planing results in pocket reduction ranging from 1.21-2.92mm

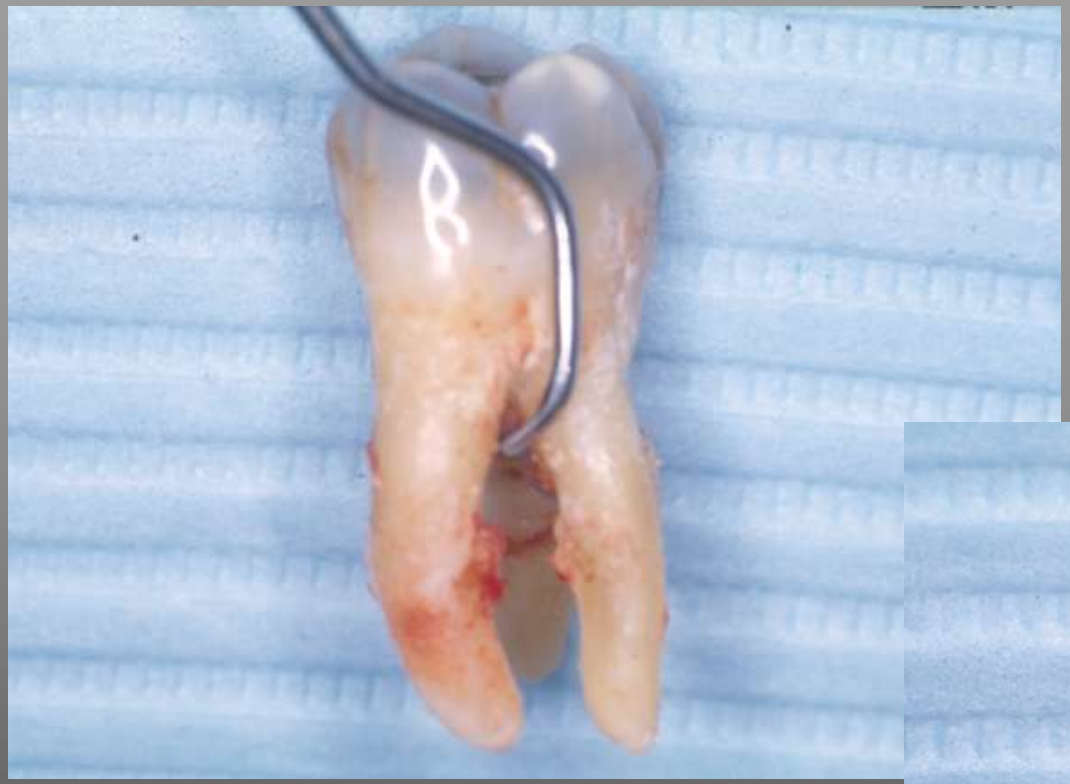
Limitations of non surgical treatment

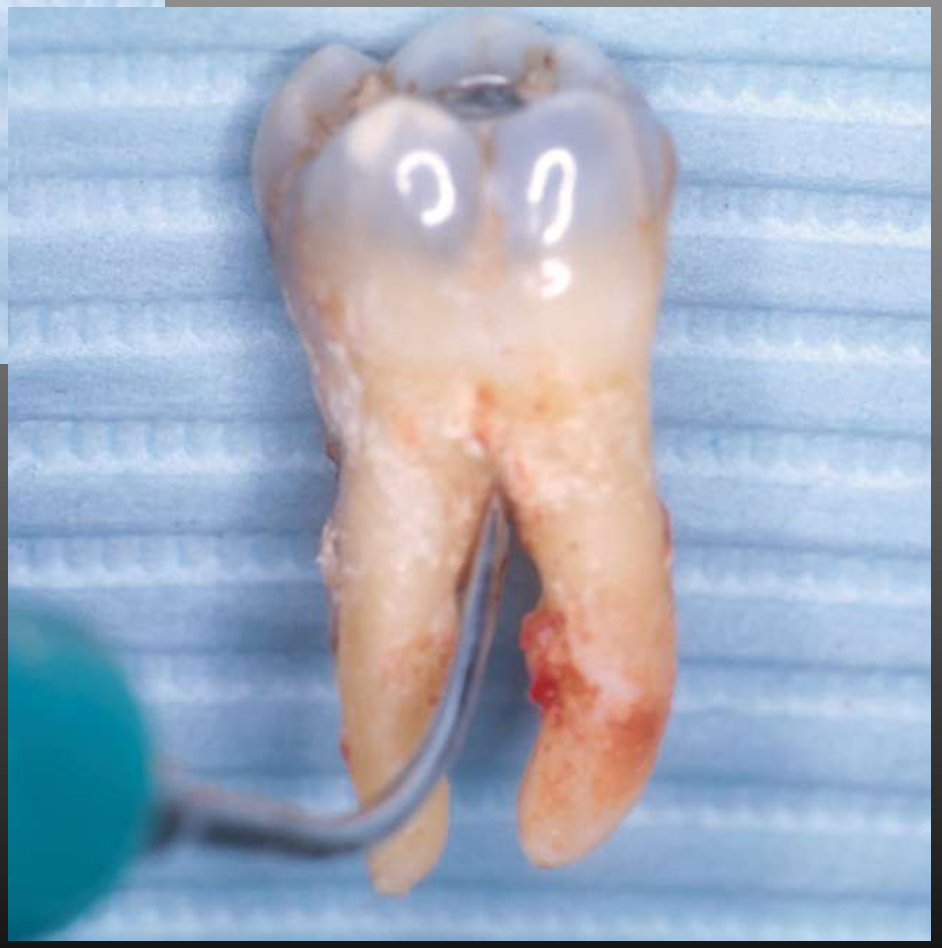
- Furcations
  - molar furcations respond less favourably to scaling and root planing than non molar teeth
  - limited response may be due to furcation anatomy and subsequent difficulty for debridement

Hand versus Ultrasonic Instrumentation

- Few studies comparing hand instrumentation versus ultrasonic instrumentation have found meaningful differences in clinical parameters except where root anatomy situations and time constraints favour ultrasonics devices i.e. furcations

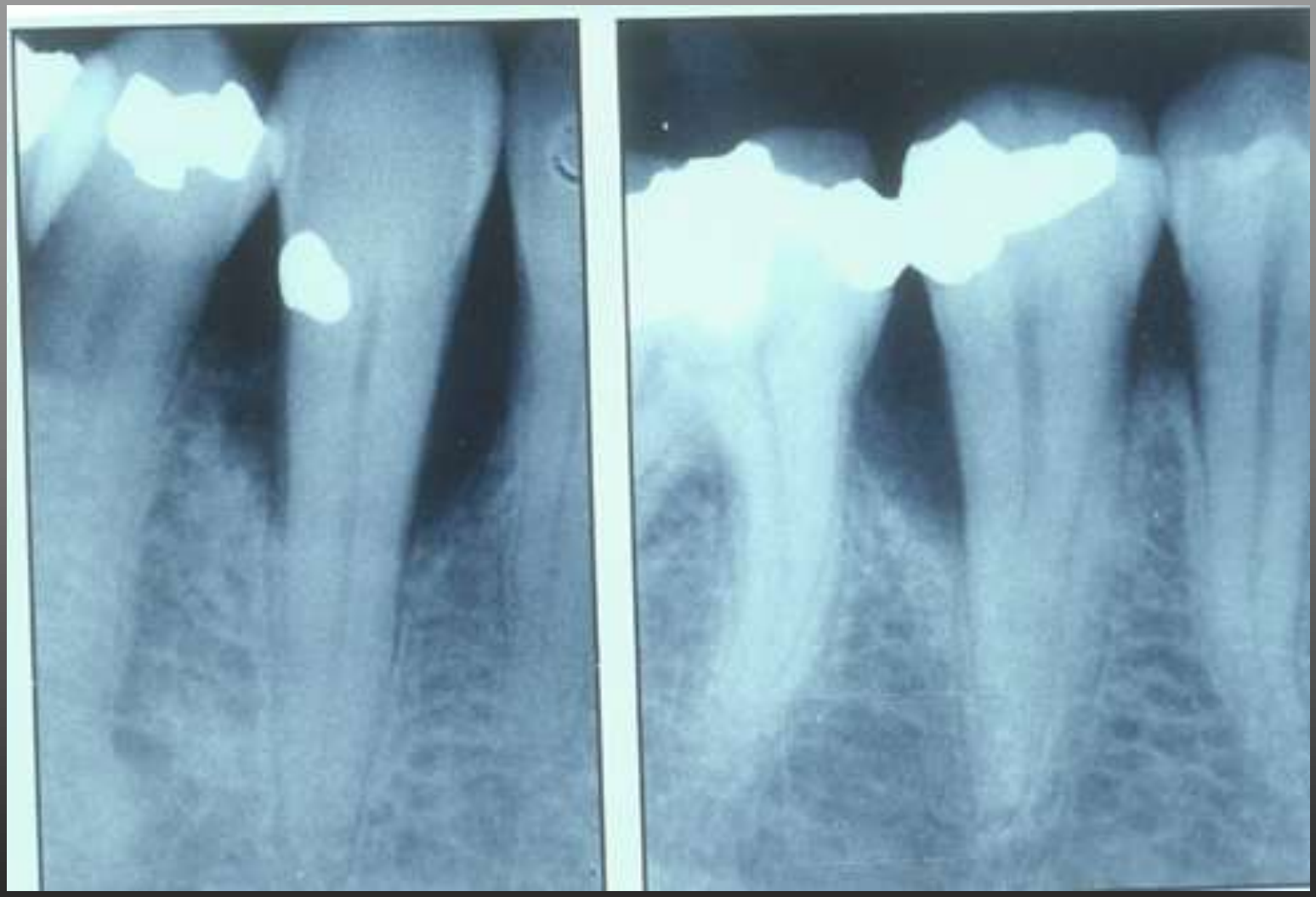


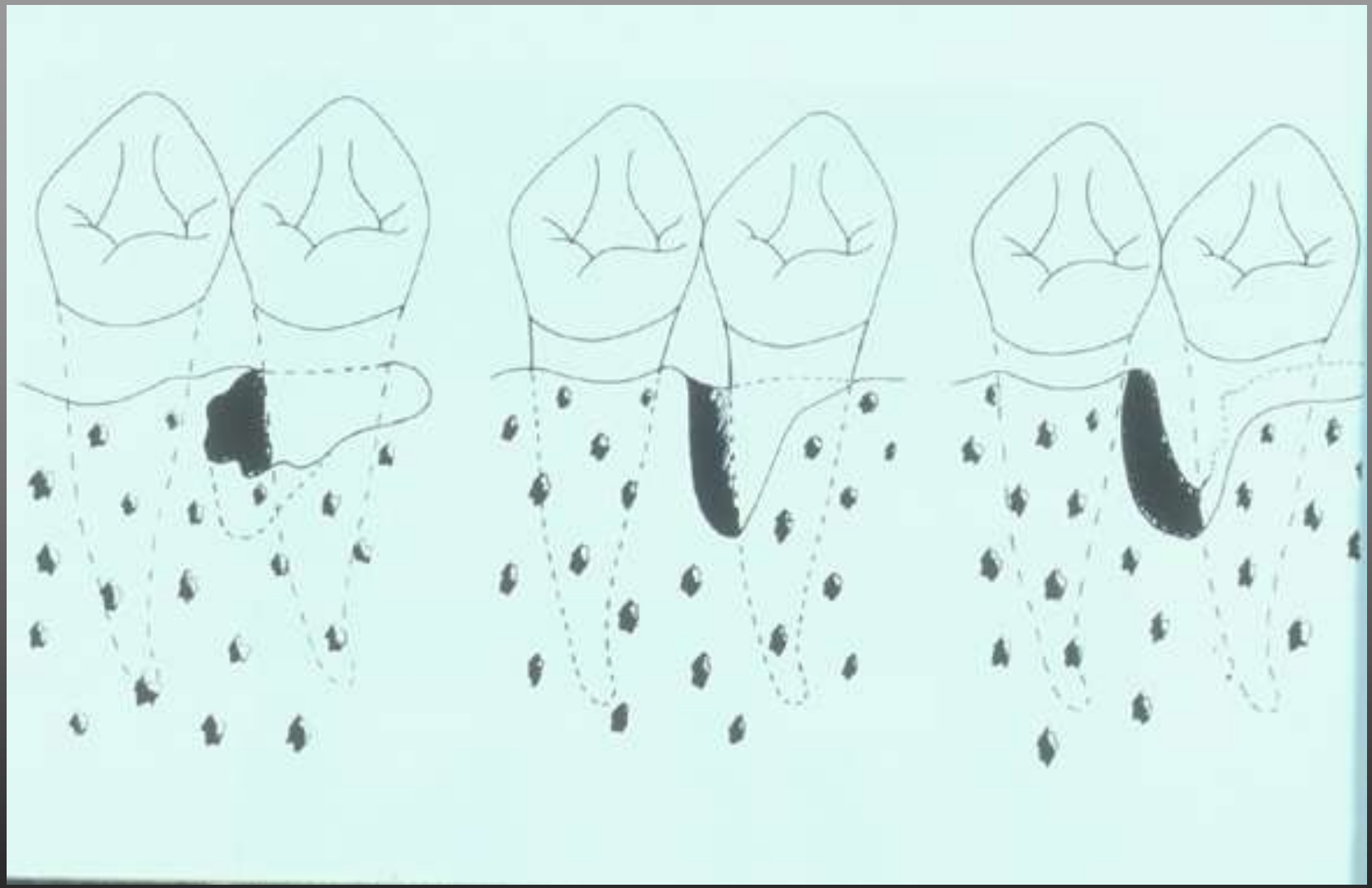


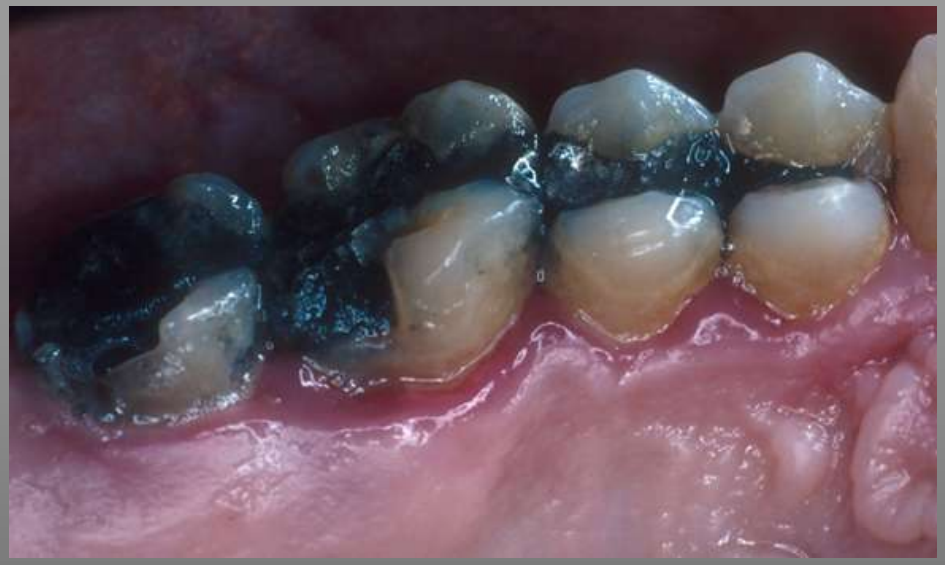


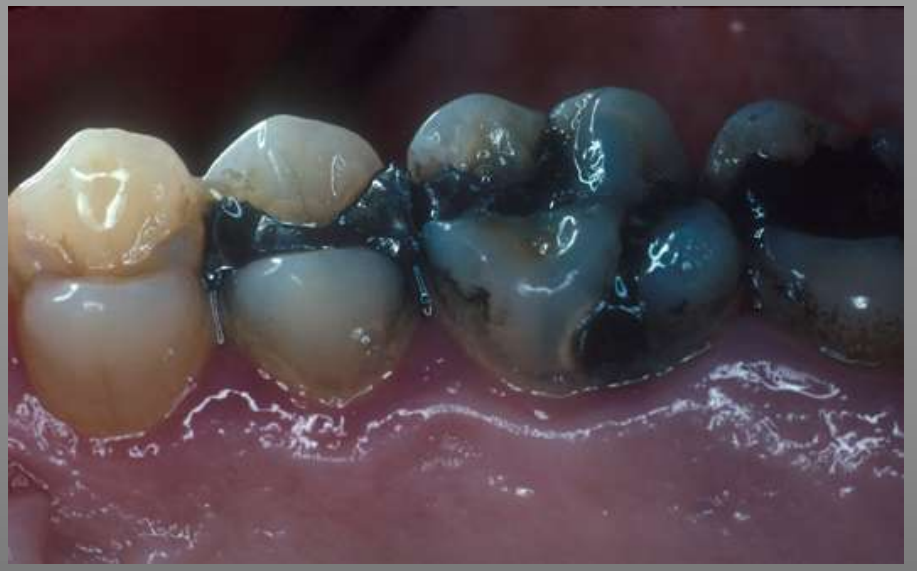
Limitations of non surgical treatment

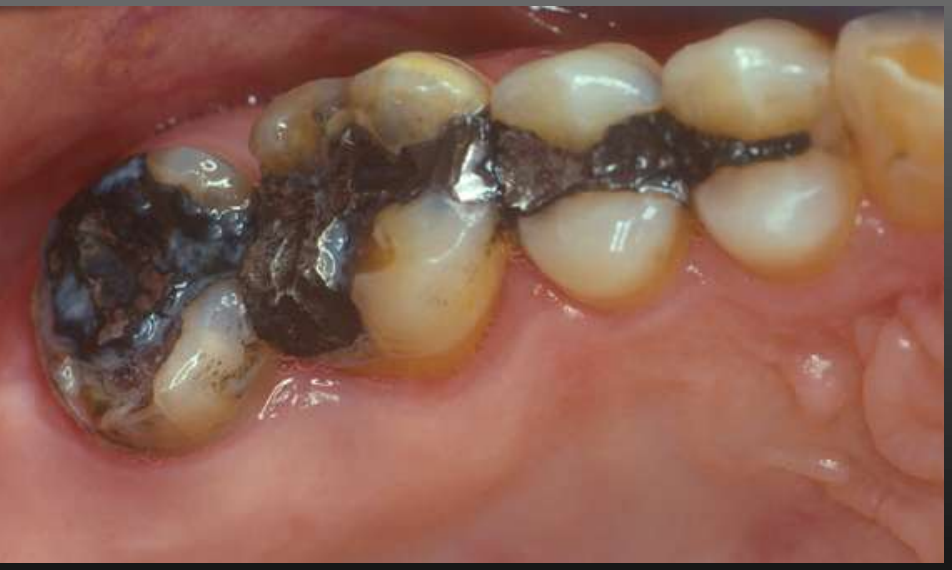
- Osseous Defects
  - morphology of osseous defects can limit the effectiveness of non surgical treatment
  - the minimal osseous repair following non surgical treatment is in stark contrast to results from studies using flap surgical debridement and regenerative procedures

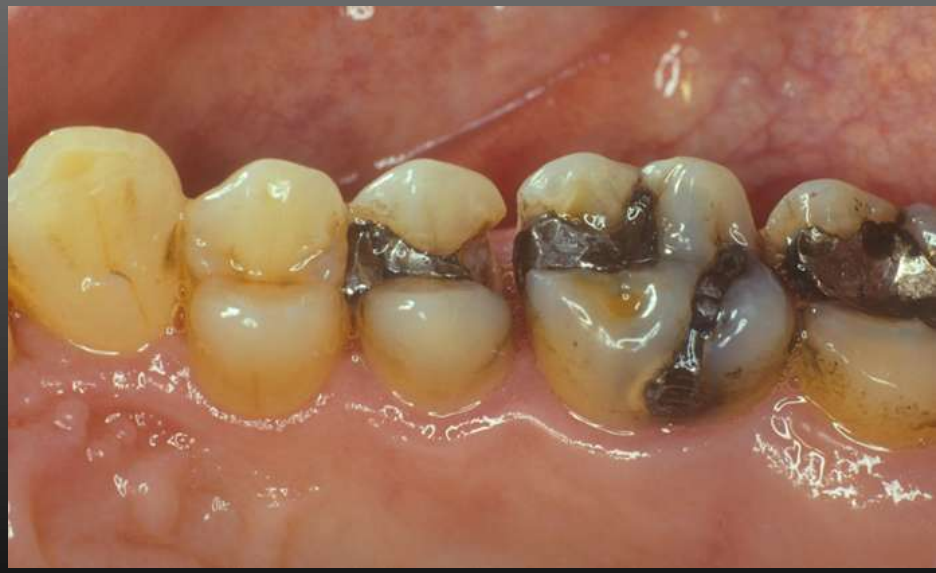


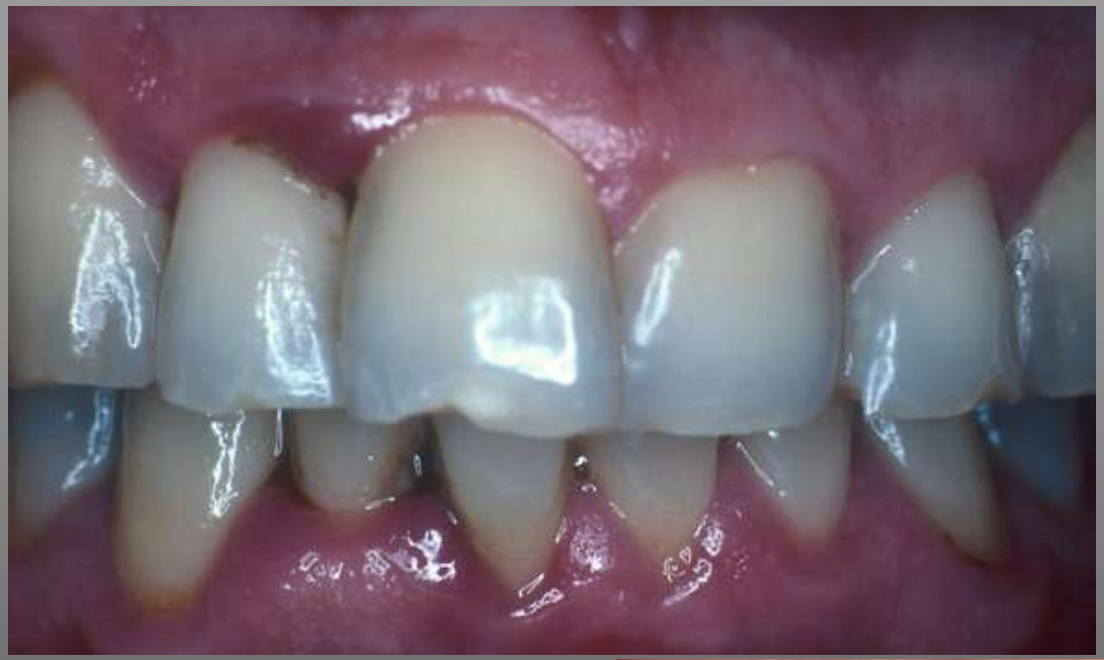


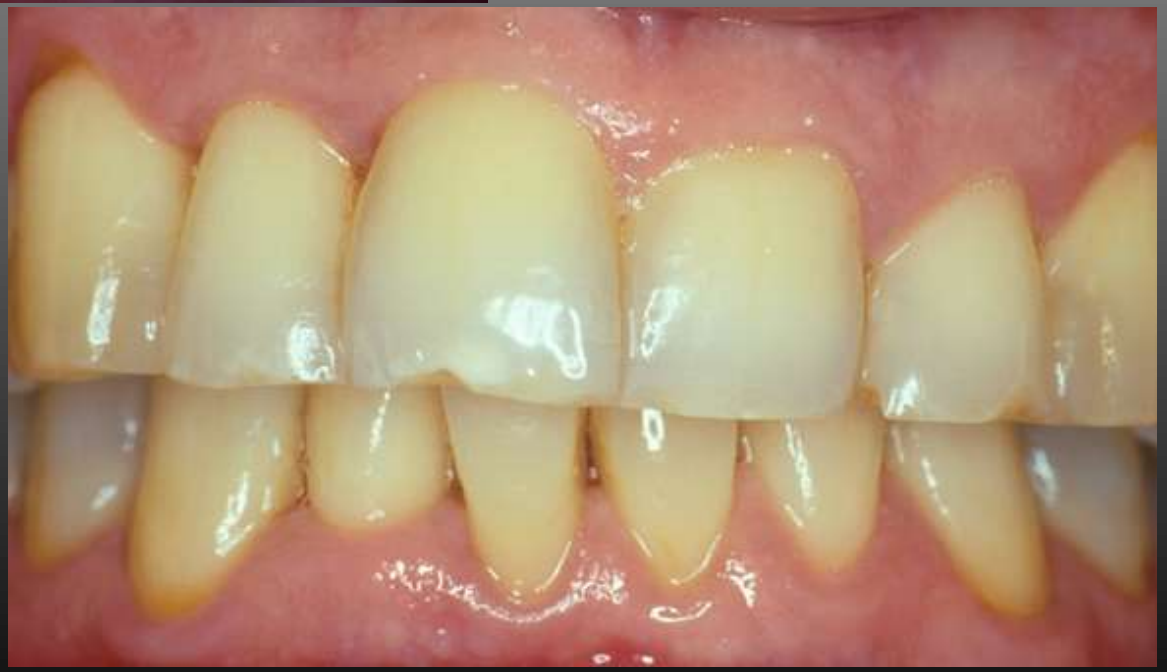


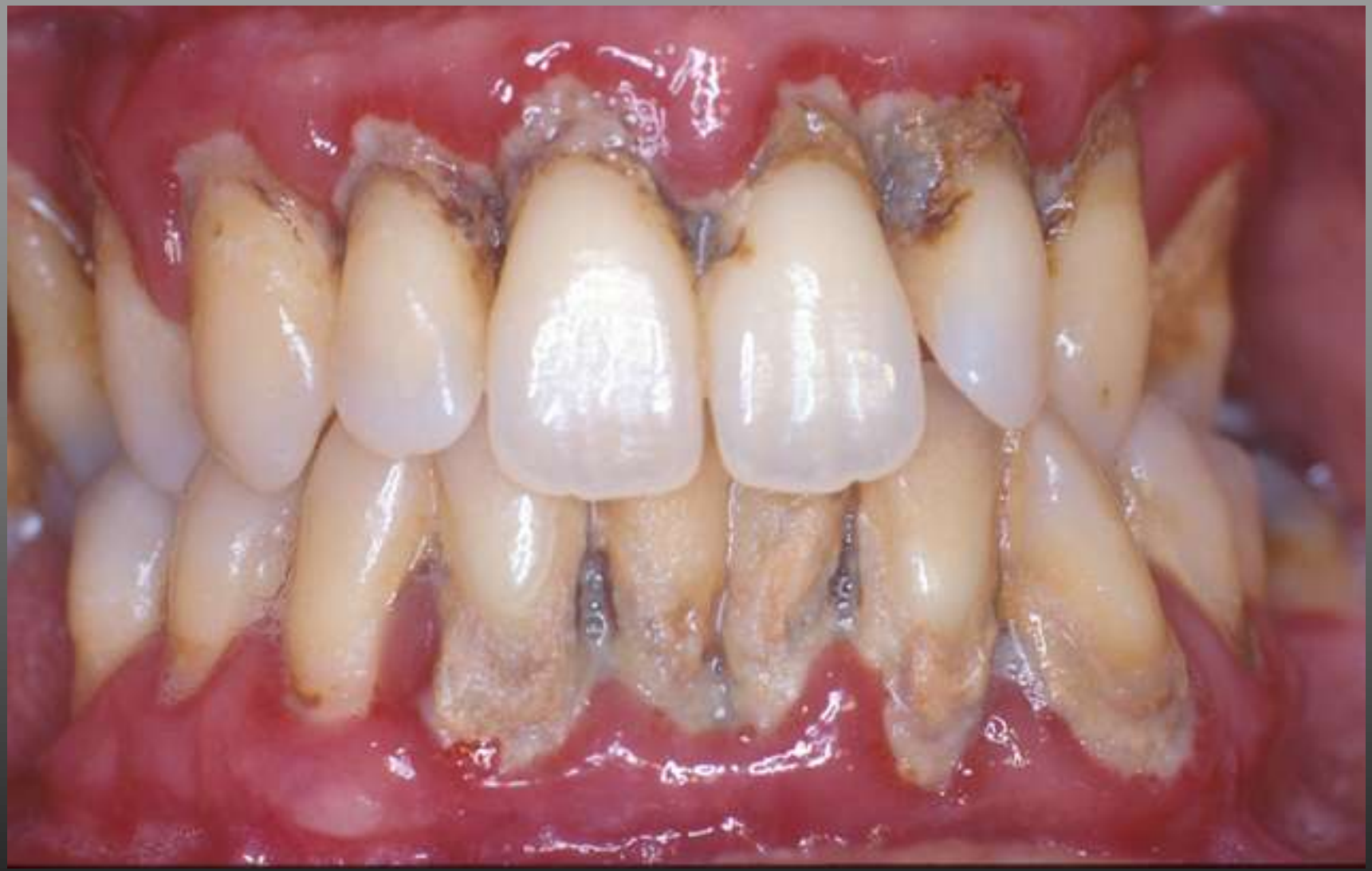


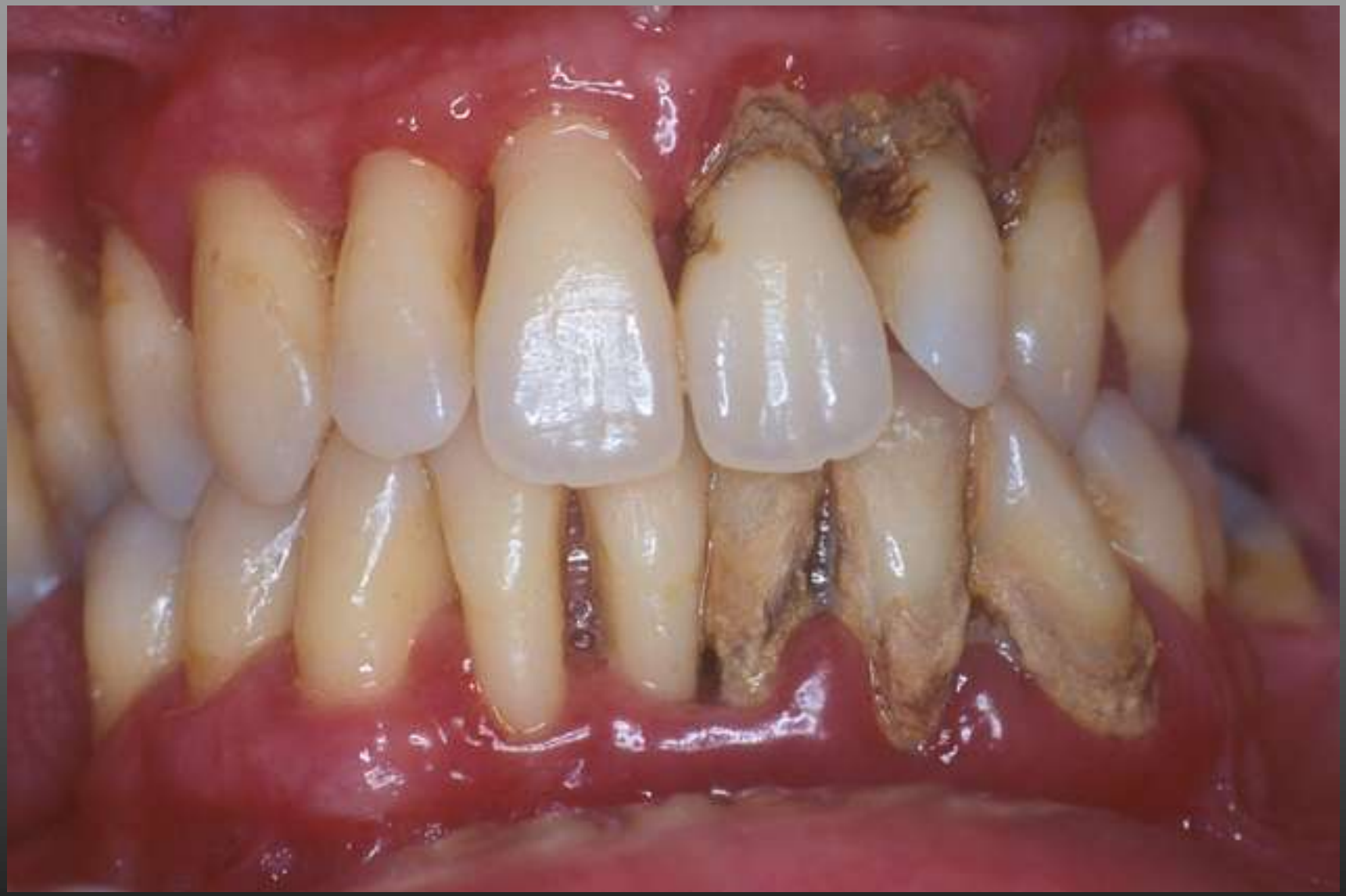


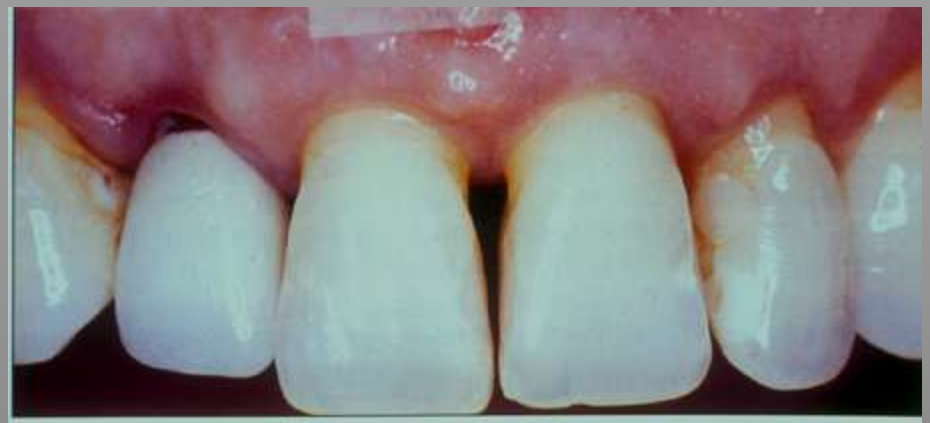


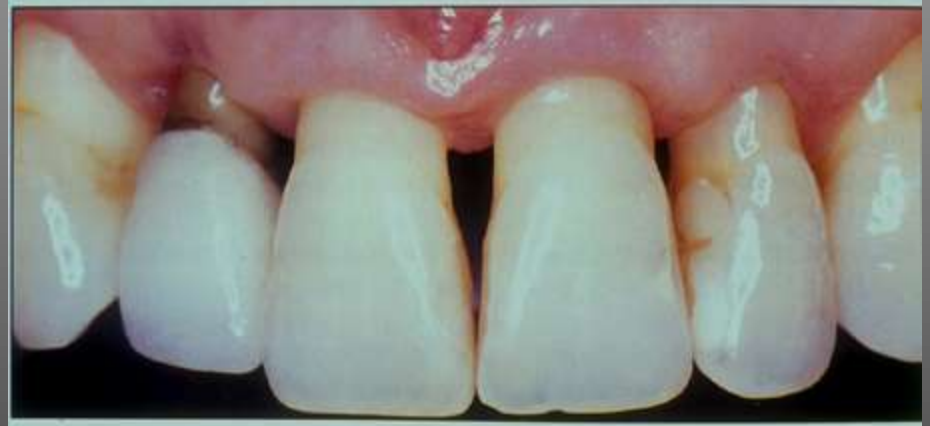


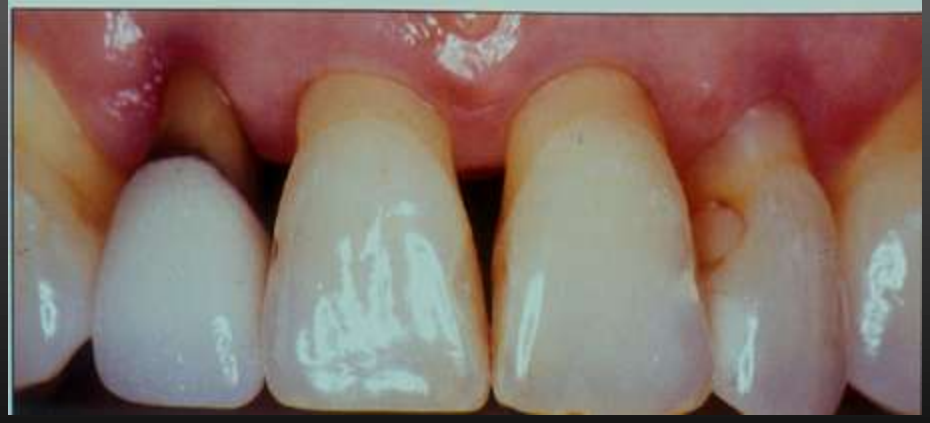


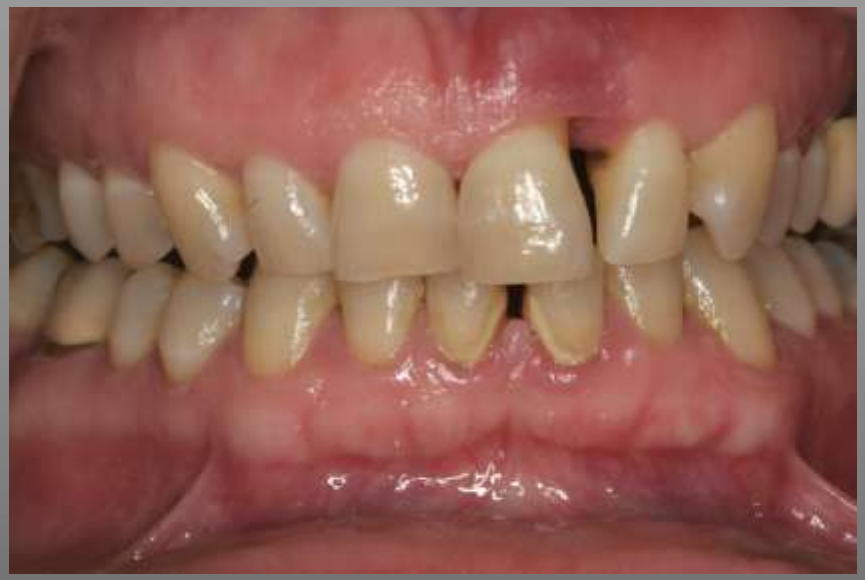


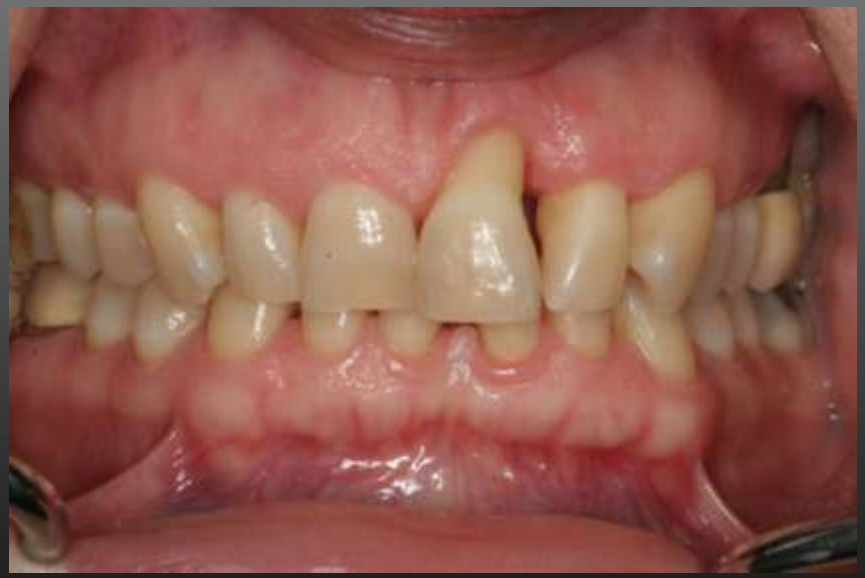












Objective 2

- Identifying your options at reevaluation
  - generally 2-3 months after non surgical therapy
  - an opportunity to assess response to treatment
  - a more definitive prognosis for teeth can be given
  - the need for further treatment can be evaluated
  - generally at reevaluation one of three clinical situations will be present

Reevaluation

- Permits the assessment of the clinical response of the tissues to the treatment provided
- allow at least 6 weeks post cause related therapy
- What parameters must be considered?

Parameters to be considered at reevaluation

- Tissue characteristics-colour, form, and aspect
- Tissue tone
- Bleeding and/or exudates-knowing their absence is more significant as a sign of periodontal health.
- Presence of subgingival plaque and/or calculus
- Clinical probing depth and attachment level and their changes over time

At reevaluation 3 possible scenarios

- Complete Resolution - place patient in appropriate maintenance regime
- Persistent inflammation with rough root surfaces - re root plane areas
- Persistent inflammation with smooth root surfaces and/or osseous defects - periodontal surgery is indicated

Powered Toothbrushes

- There is no clear evidence that powered brushes have provided any clinically significant improvement of clinical condition when compared to manual brushing

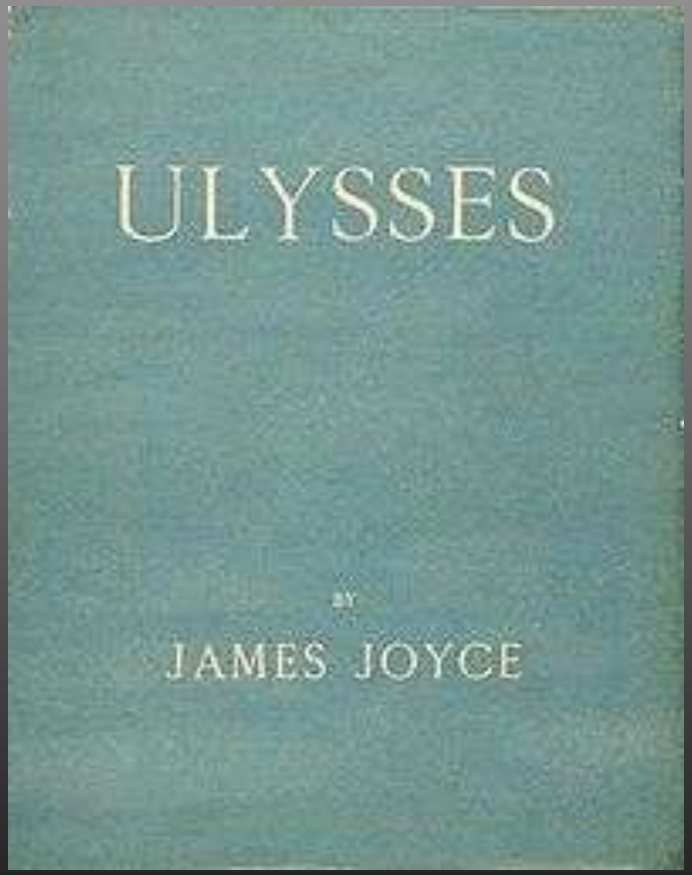
Toothpastes

- Research appears to show that this triclosan/ copolymer dentifrice retards the progression of periodontal disease. Interesting as it had no effect on gingivitis!

Dental Floss

- First described by Dr. Levi Spear Parmly from New Orleans in 1815.
- 12% of Americans floss daily
- 49% do not floss at all!
- Unless performed well it is of little clinical benefit

- “He took a reel of dental floss from his waistcoat pocket and breaking off a piece, twanged it smartly between two and two of his resonant unwashed teeth -Bingbang, bingbang”



Flossing Aids

- Flossing Aids can motivate the patient as they make an effective flossing technique easier to achieve

Interdental Brushes

- In open embrasures, wide enough for use of interdental brushes, these brushes are somewhat more effective than other interdental aids

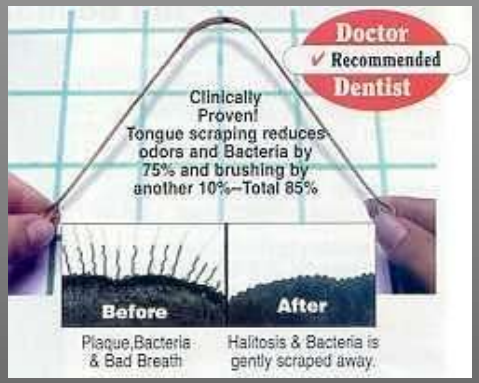
Interdental Irrigation

- Dental irrigation provides some adjunctive gingivitis reducing effects
- Very labour intensive
- Maximum benefit in specific circumstances, ie: implant FPD

How not to use your WaterPik!

Tongue Cleaners

- Tongue cleaning is of no significant benefit as an adjunct to tooth brushing in plaque formation
- Tongue cleaning is of benefit in reducing “morning mouth”



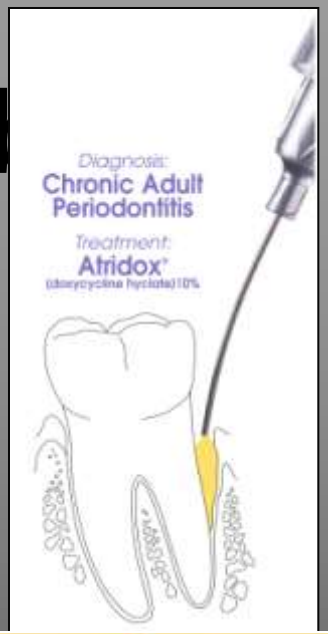
Mouthwashes

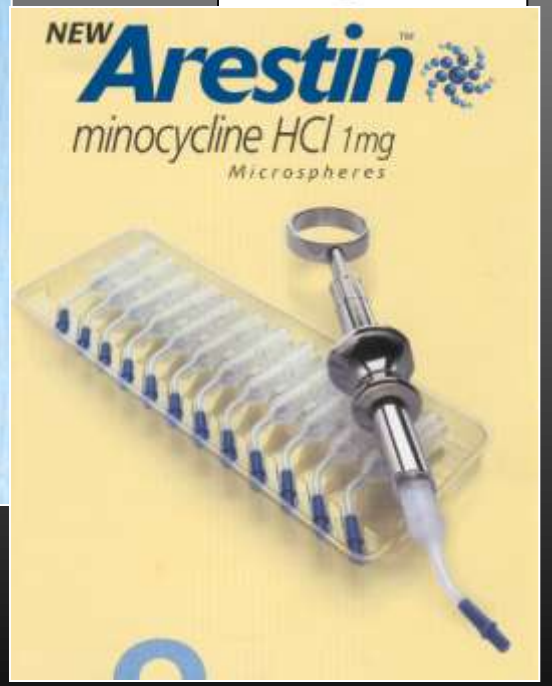
- Only 2 Mouthwashes have been approved by the FDA and shown to be effective longterm in plaque reduction
- Corsodyl - 51% plaque reduction
- Listerine - 39% plaque reduction

- Only Corsodyl seems to be effective enough for adequate short term replacement of mechanical plaque control.
- Stainning is a concern

Locally Delivered Antimicrob

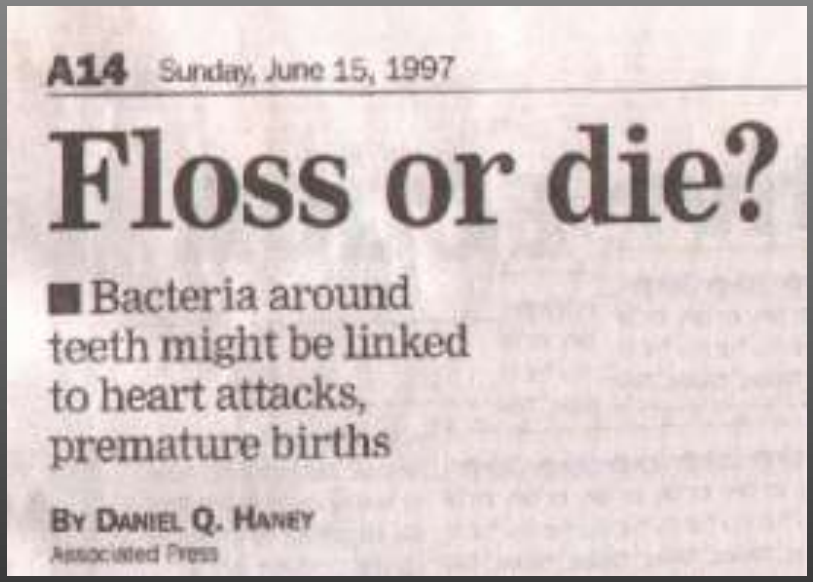
- Always important when evaluating the data that we differentiate between statistical significance and clinical significance. Is 0.3mm attachment gain really clinically significant?





Periodontal Disease and Systemic Disease

- In recent years periodontal disease has been linked to
  - Cardiovascular Disease
  - Preterm low birth weight
  - Diabetes



A14 Sunday, June 15, 1997

Floss or die?

■ Bacteria around teeth might be linked to heart attacks, premature births

By Daniel Q. Haney
Associated Press

Periodontal Disease and Cardiovascular Disease

- A consensus report published jointly in Journal of Periodontology and American Journal of Cardiology (2009) recommended protocols for dealing with patients with either disease.
- Both periodontal disease and cardiovascular disease are inflammatory diseases and periodontal disease may increase the inflammation level throughout the body making patients more prone to cardiovascular disease.

- Put most simply, the potential biologic mechanism is that oral bacteria in the bloodstream cause an increase in c-reactive protein, a protein produced in the liver, that inflames arteries and clots blood.

Dentistry is Sexy!