Mucogingival Surgery and Periodontal Aesthetics

DR. BETUL RAHMAN

Learning Outcomes

At the end of this lecture, you

1.should understand gingival biotypes, causes and classification of gingival recessions

2. should be familiar with the mucogingival surgical techniques for the treatment of mucogingival problems.

3.should understand the purpose and types of crown lengthening procedures

Soft tissue aesthetics

Recessions

Crown fractures/crown lengthening

Gingival Recessions

Causes:

- Anatomic conditions, including lack of attached gingiva, inadequate thickness of the alveolar bone plate and root prominences
- Muscular inserts near the gingival margin
- Poor tooth alignment
- Acquired pathological conditions
- Iatrogenic factors, such as improper restorations invading the biological space
- Mechanical trauma, including tooth brushing

Gingival Recession

- Localised
- Generalised

Gingival Recession

Classification of Recession

- **Miller's Classification (1985)**
  - Class 1 Marginal tissue recession does not extend to the mucogingival junction. There is no loss of bone or soft tissue in the interdental area. This type of recession can be narrow or wide.

Class II. Marginal tissue recession extends to or beyond the mucogingival junction. There is no loss of bone or soft tissue in the interdental area. This type of recession can be subclassified into wide and narrow.

Class III. Marginal tissue recession extends to or beyond the mucogingival junction. There is bone and soft tissue loss interdentally or malpositioning of the tooth.

- Class IV. Marginal tissue recession extends to or beyond the mucogingival junction. There is severe bone and soft tissue loss interdentally or severe tooth malposition.

Cairo classification

Recession Type 1:
No loss of interproximal attachment

Fig. 1a Fig. 1b Fig. 1c

Fig. 1a: A buccal gingival recession at the upper left canine
Fig. 1b: The level of buccal clinical attachment was 3 mm
Fig. 1c: The interproximal CEJ is not detectable: the final diagnosis is RT1

Recession Type 2: Interproximal attachment loss is less than or equal to buccal attachment loss

Fig. 2a

Fig. 2b

Fig. 2c

Fig. 2a: A buccal gingival recession at the upper left canine
Fig. 2b: The level of buccal clinical attachment was 4mm
Fig. 2c: The level of interproximal clinical attachment was 3mm: the final diagnosis is RT2

Recession Type 3: Interproximal attachment loss is higher than the buccal attachment loss

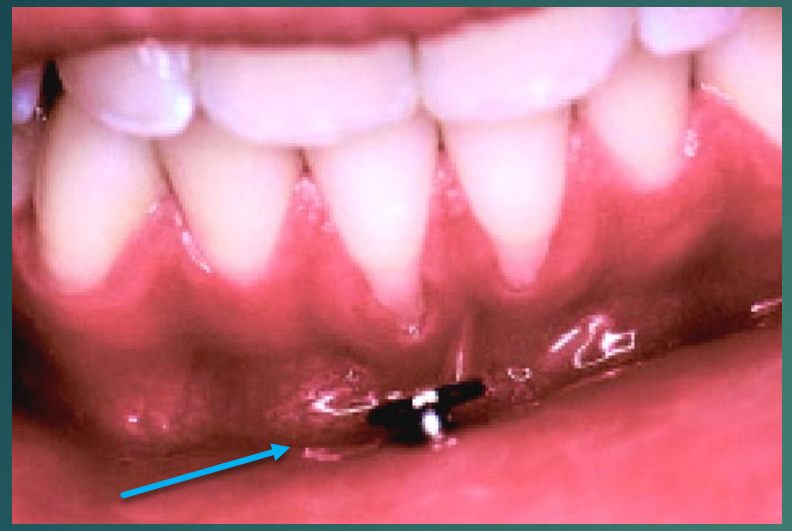
Fig. 3a

Fig. 3b

Fig. 3c

Fig. 3a: A buccal gingival recession at the upper left lateral incisor
Fig. 3b: The level of buccal clinical attachment was 6 mm
Fig. 3c: The level of interproximal clinical attachment was 8mm: the final diagnosis is RT3

New causes of recession



Prevalence of recession lesions

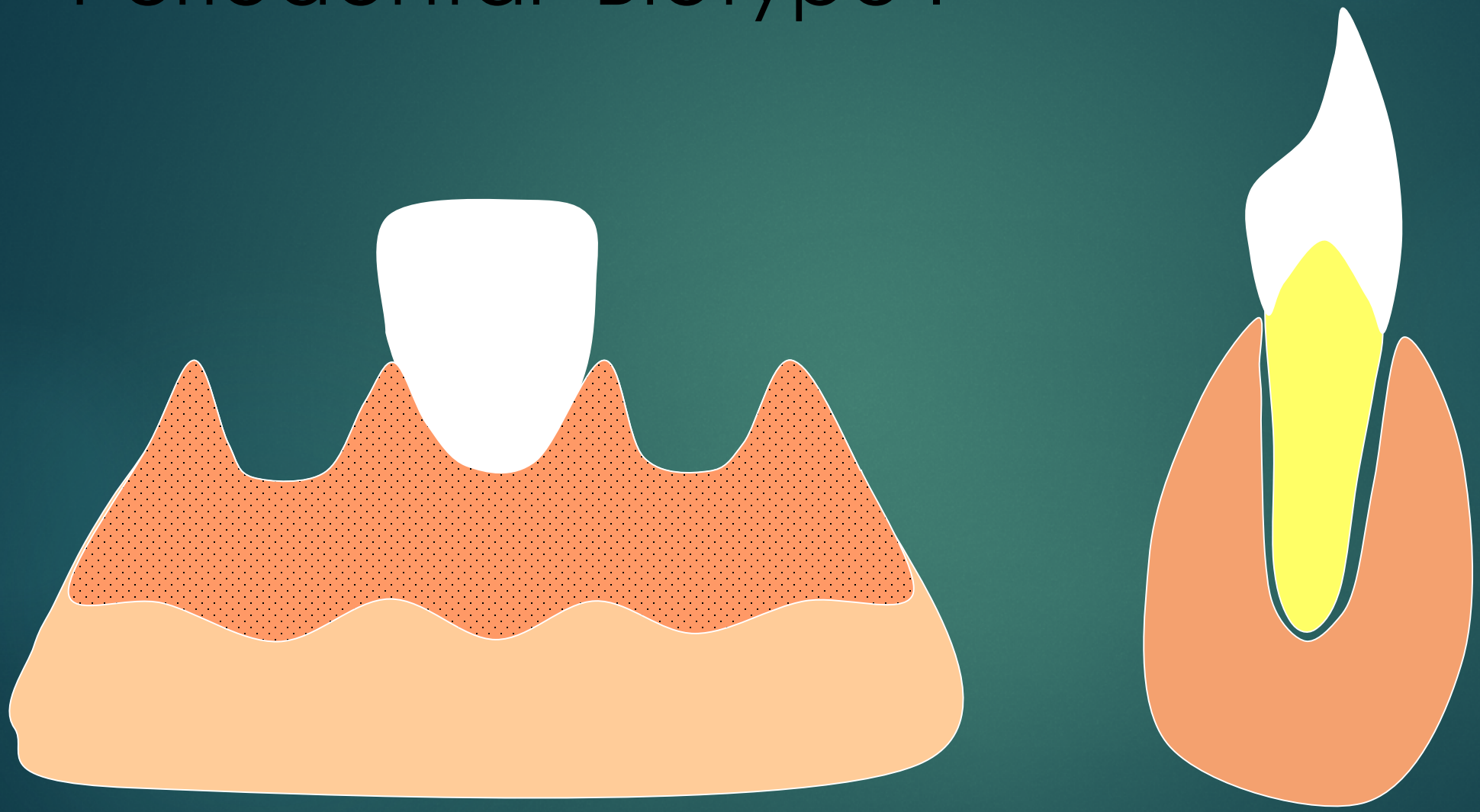
- 1-19% of children have one or more recession lesions (Ruf 1998 ortho)
- 50 % of people 18 to 64 years of age have one or more sites with recession
- 88 % of people 65 years of age and older have one or more sites with recession (Kassab 2003)

Periodontal Biotype

Three gingival biotypes have been described :

- Thin, scalloped biotype
- Thick, flat biotype
- Thick, scalloped biotype

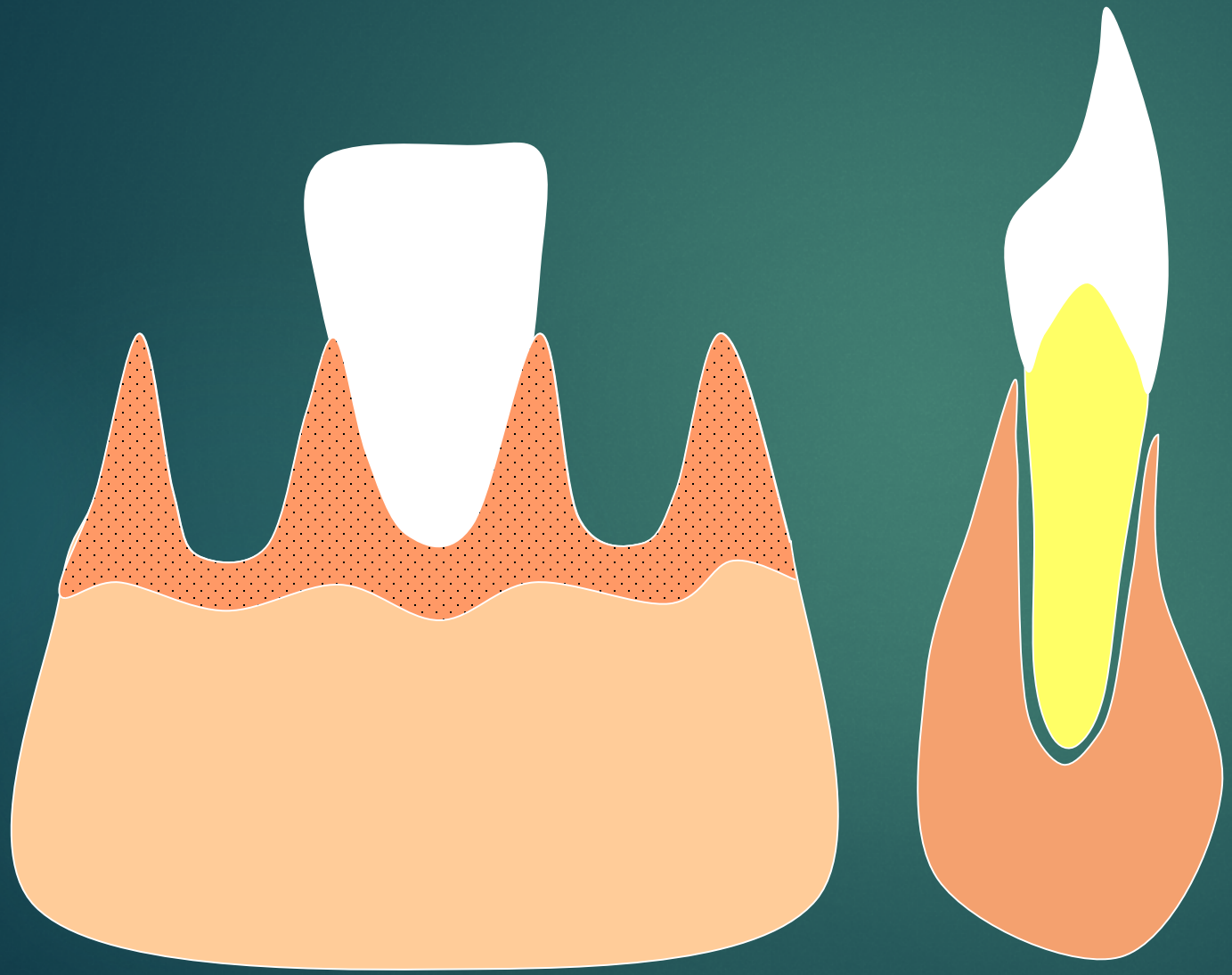
Periodontal Biotype I

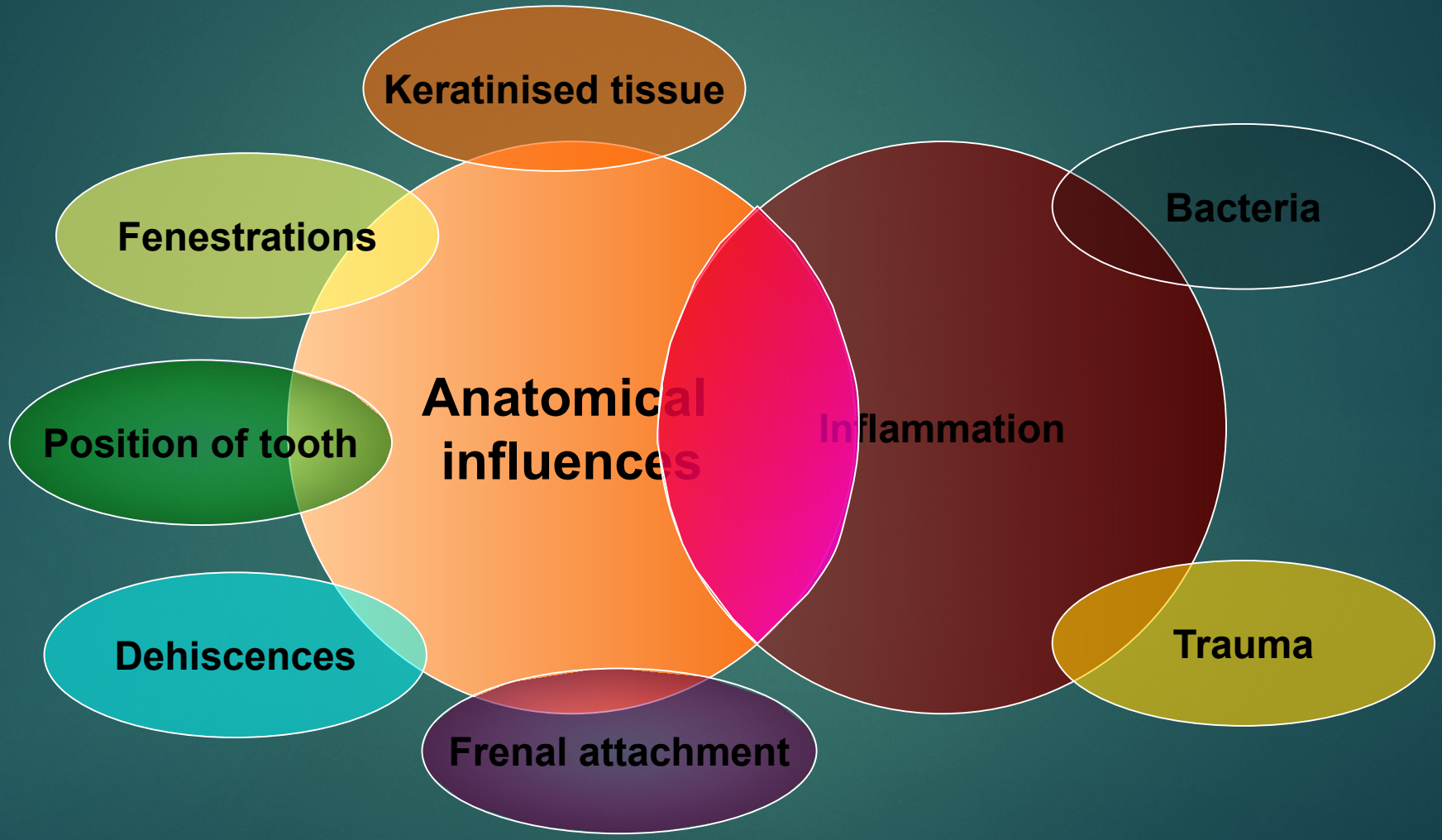


Thick scalloped periodontal biotype

Thick flat periodontal biotype

Periodontal Biotype II




Keratinised tissue
Fenestrations
Bacteria
Position of tooth
Anatomical influences
Inflammation
Dehiscences
Trauma
Frenal attachment

Gingival recession

- Indications for surgical correction include:

  - increases in recession
  - Persistent inflammation
  - dentinal hypersensitivity
  - aesthetic concerns of the patient
  - Early Caries
  - Age

Can a clean site be maintained?