

Restorative dentistry I.

4 th lecture

Subgingival defects

Main problems

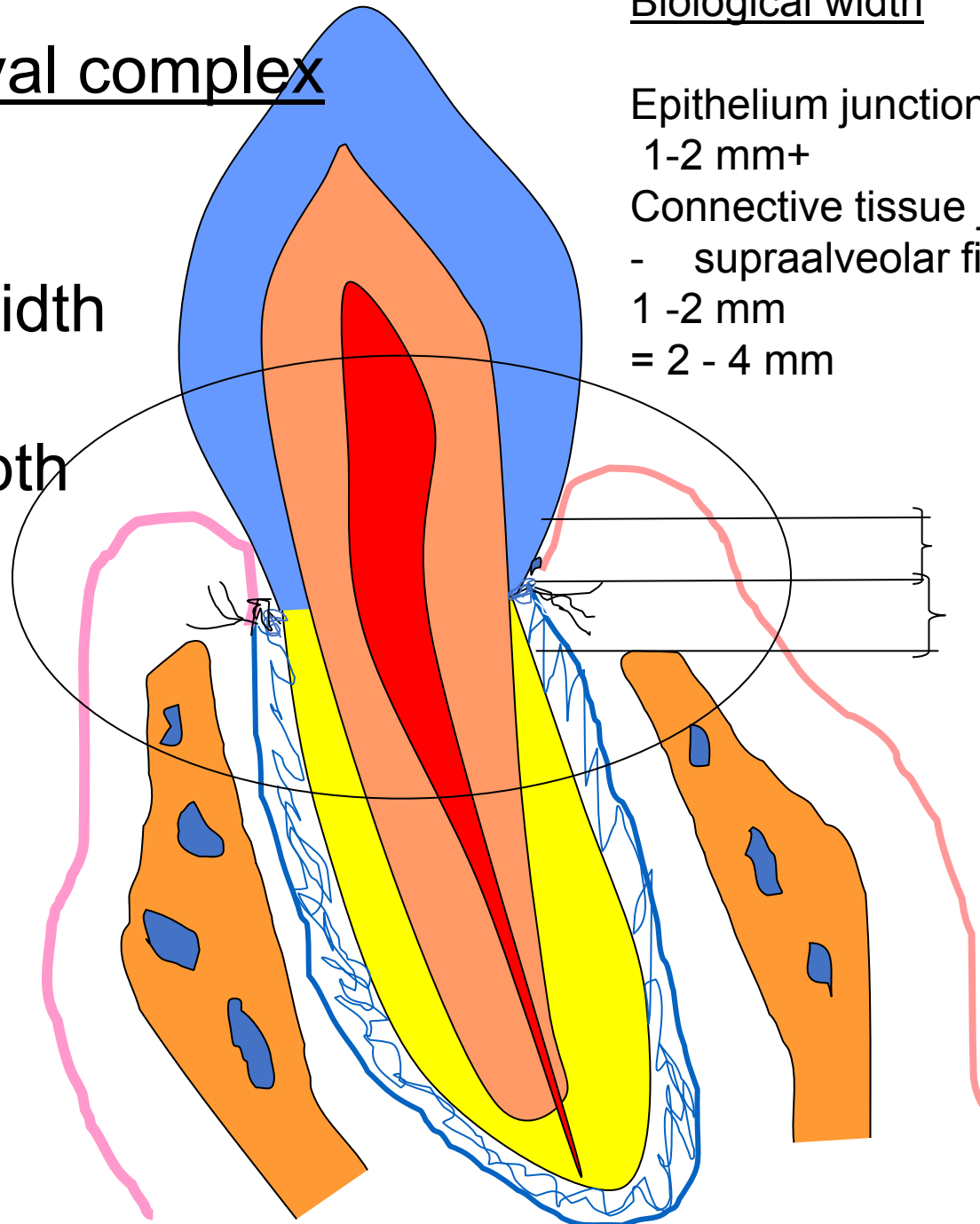
- Substantial loss of hard dental tissues
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- Subgingival cervical borders – difficulties with dry operative field
- (bleeding, sulcular liquid)
- Adhesive procedures in region without enamel
- – consider selfetching adhesive

SUBGINGIVAL DEFECTS

- Technical parameters:
- Possibility to keep the operating field dry
- Biological parameters: measurement of distance between clean gingival border and insertion of periodontal ligament or crest of alveolar bone using periodontal probe and/or xray.
- Biological width

Dentogingival complex

DGC =
biological width
2-4mm +
sulcular depth
1-3mm
= 3-7 mm



Biological width

Epithelium junction

1-2 mm+

Connective tissue junction

- supraalveolar fibers

1 -2 mm

= 2 - 4 mm

1 - 2 mm

1 - 2 mm

*Gargiulo AW, Wentz
FM, Orban B
(J Perio 1961)*

*Vacek JS, Gher ME,
Assad DA,
Richardson AC,
Gambaressi LI
(Int J Perio & Rest
Dent 1994)*

Classification of subgingival defects

- 1. Rubberdam is possible to use, gingival border can be seen.
- 2. Rubberdam does not allow complete isolation of operating field, biological width is ok.
- 3. Subgingival defect, biological width is affected.

Solution

- 1. Margin elevation – cervical margin relocation using flowable material or composite filling material
- 2. Gingivectomy + gingivoplasty
- 3. Elongation of clinical crown – crown lengthening (gingivectomy + ostectomy)
- Reconstruction: direct or indirect

Cervical margin relocation

- SEQUENCE OF OPERATION – MARGIN RELOCATION •

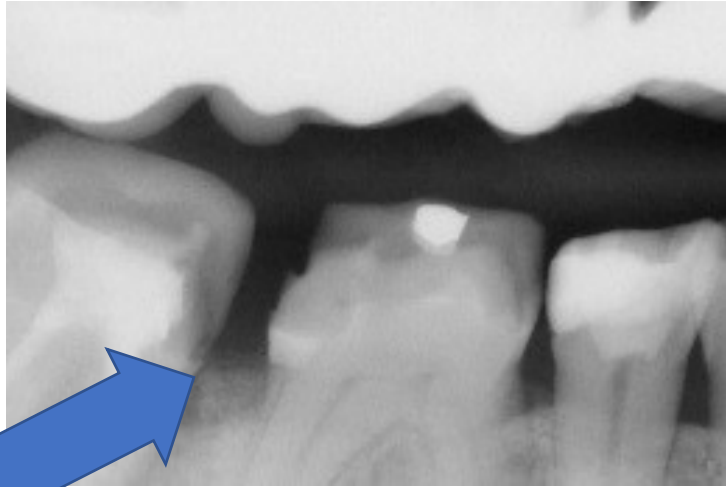
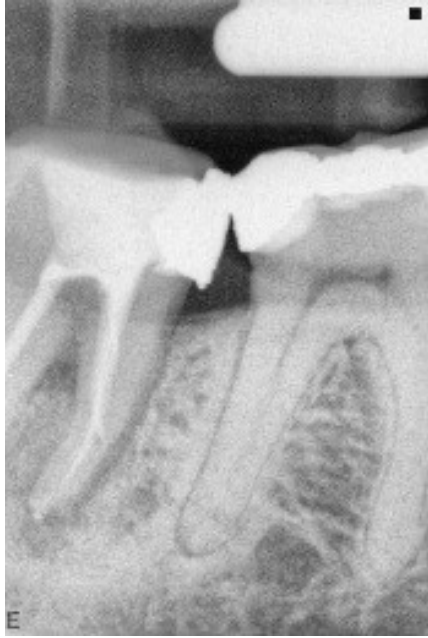
- Consider possibility of effect of rubberdam and biological width •

Cervical margin relocation

- Application of rubberdam
- Matrix band – can be cut (appr.3 - 5 mm)
- Tightening of the matrix with the retainer
- Insertion of a wooden wedge
- Adhesive procedure consider selfetching adhesive system
- Flowable
- Composite







New margin



Gingivectomy and gingivoplasty

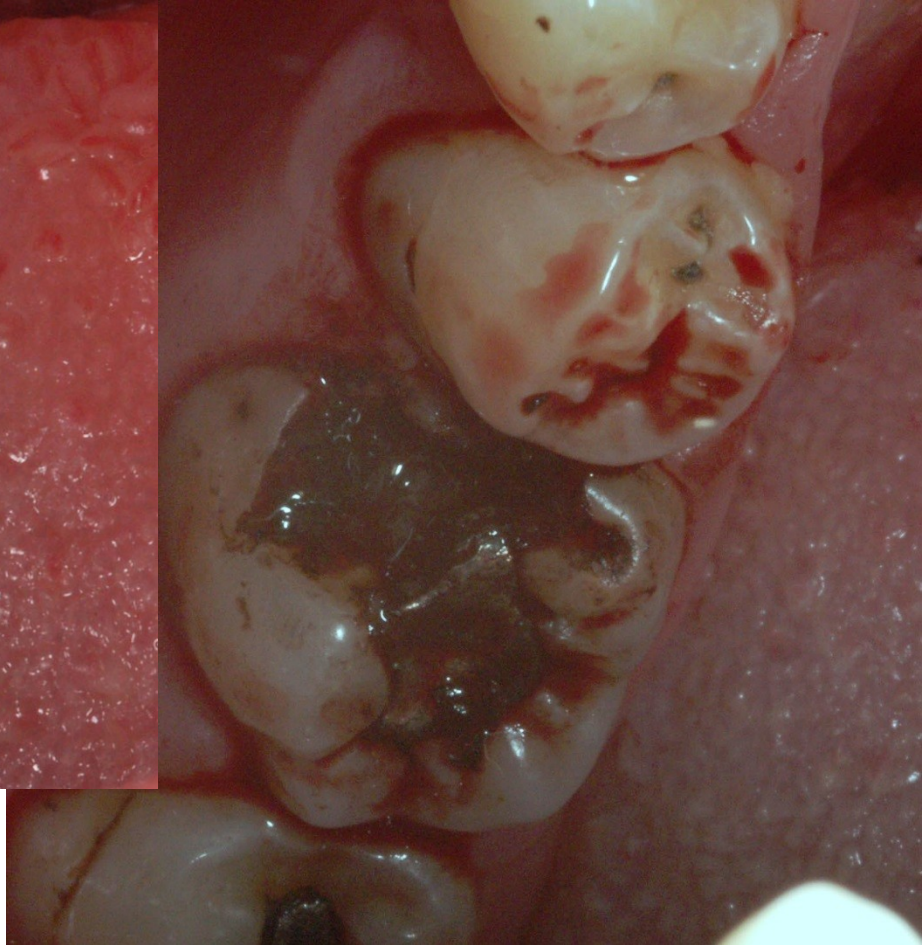
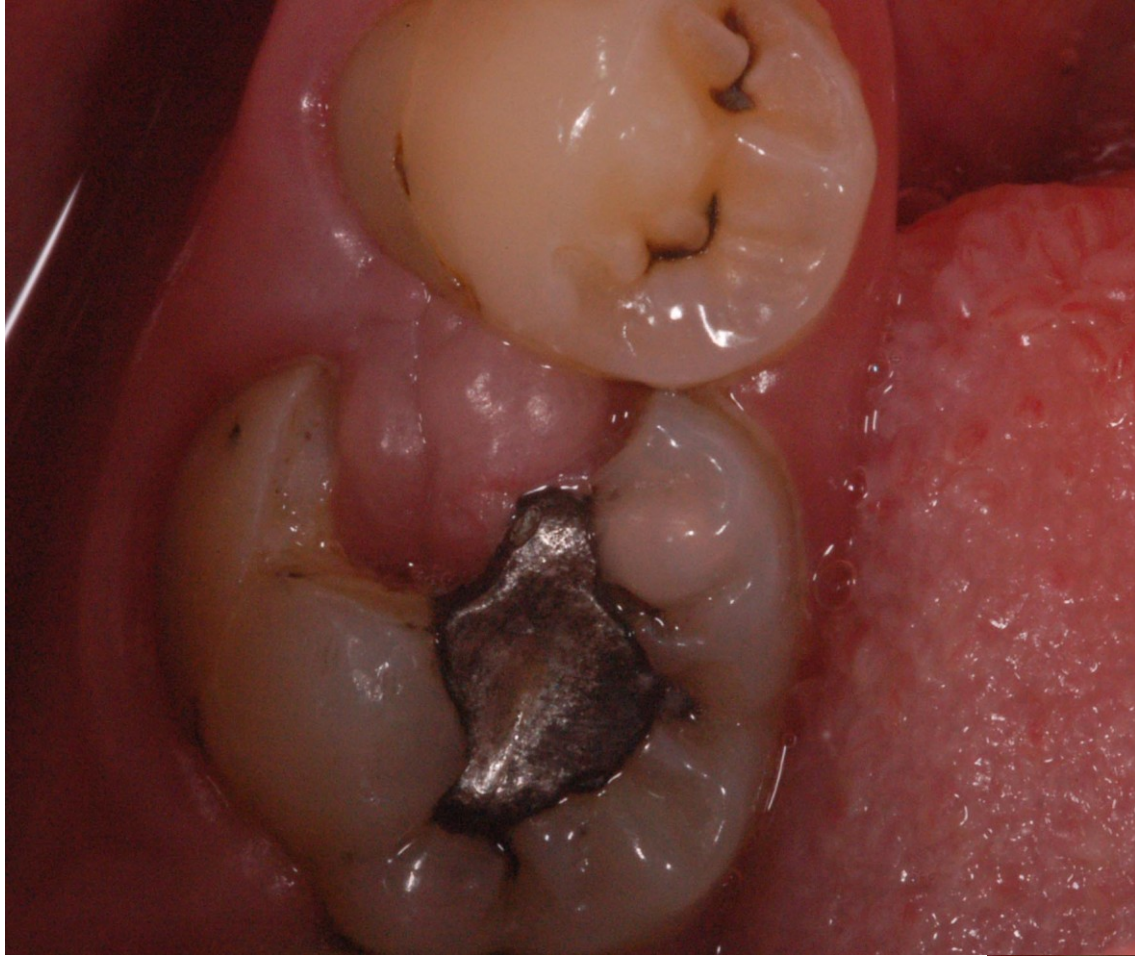
- Cutting gingiva and shaping it anatomically :
- Scalpel - Laser - Cauter

Gingivectomy Gingivoplasty



GIC as a temporary





Crown lengthening

- Surgical procedure based on gingivectomy, gingivoplasty and ostectomy.
- Closed and open



Extrusion

- Extrusion orthodontic
- Fast
- Surgical

