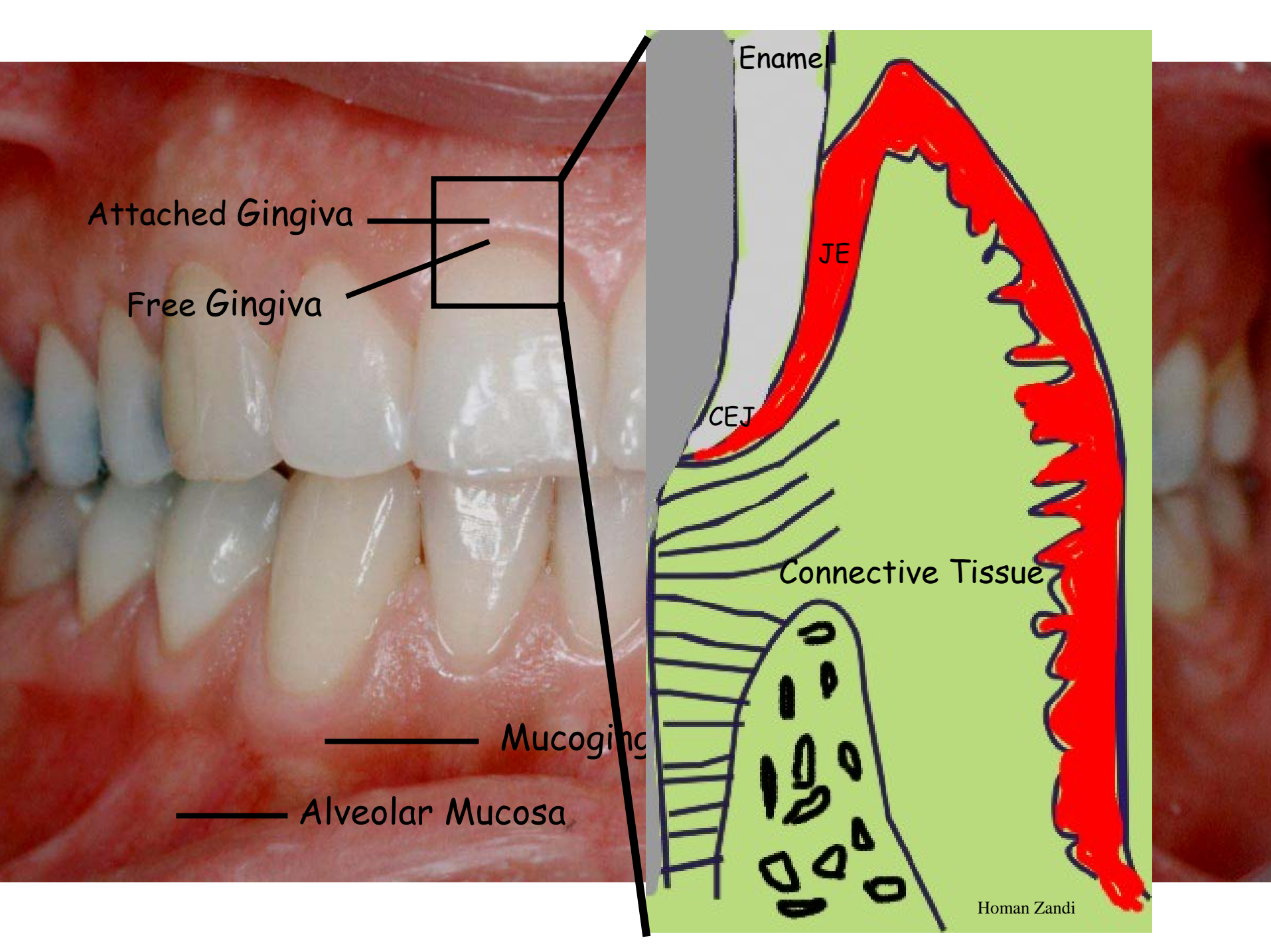


# Flap Design

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Attached Gingiva

Free Gingiva

Enamel

JE

CEJ

Connective Tissue

Mucogingival Junction

Alveolar Mucosa

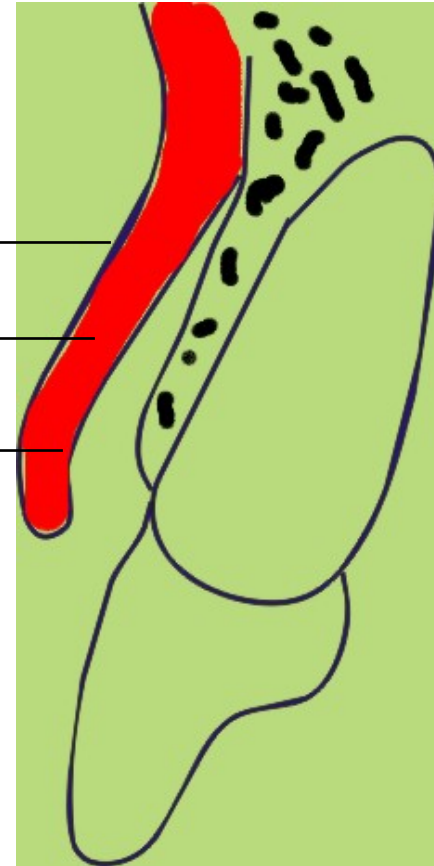
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# Objective

- The flap should offer adequate access and have an adequate blood supply
- The flap must be of adequate size and fully reflected
- The edges must lie on the sound bone

# Mucoperiosteal Flap

- Mucosa
- Connective tissue
- Periosteum



# Considerations

- The number of teeth involved in the surgery
- The length and shape of the roots involved
- The dimensions of the lesion
- The amount of attached gingiva
- The existence and depth of periodontal pockets
- The locations of muscle attachments and frenums
- The height or depth of the vestibule
- The location of anatomic structures, such as the neurovascular bundles and the maxillary sinus

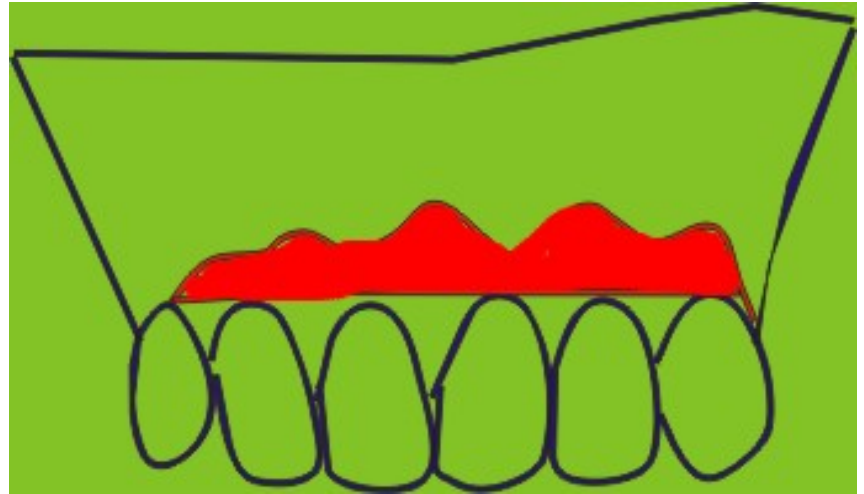
# Techniques

- Gingival flap
- Intrasulcular flap (marginal)
  - Triangular
  - Rectangular
- Semilunar flap
- Submarginal flap
  - Ochsentein-Luebke flap



# Gingival Flap

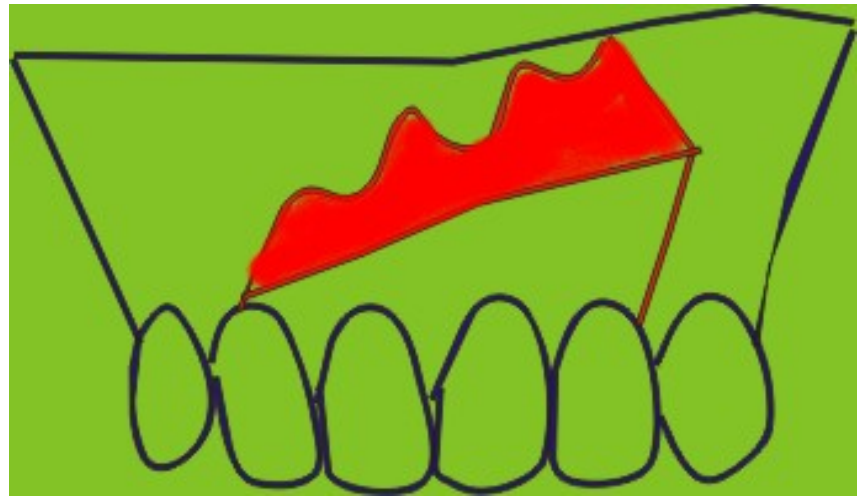
- Indications
  - Cervical resorptive defects
  - Cervical area perforations
  - Periodontal procedures





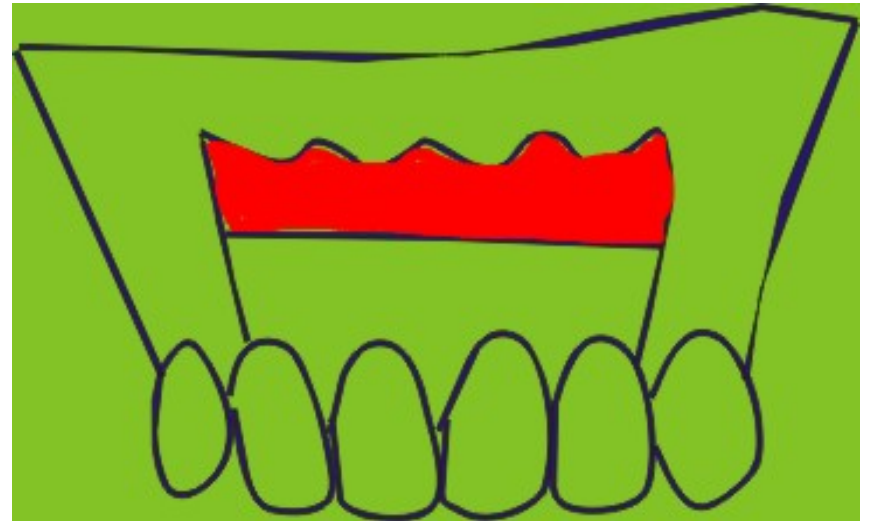
# Intrasulcular Flap (Triangular)

- Indications
  - Periapical Surgery  
Posterior areas



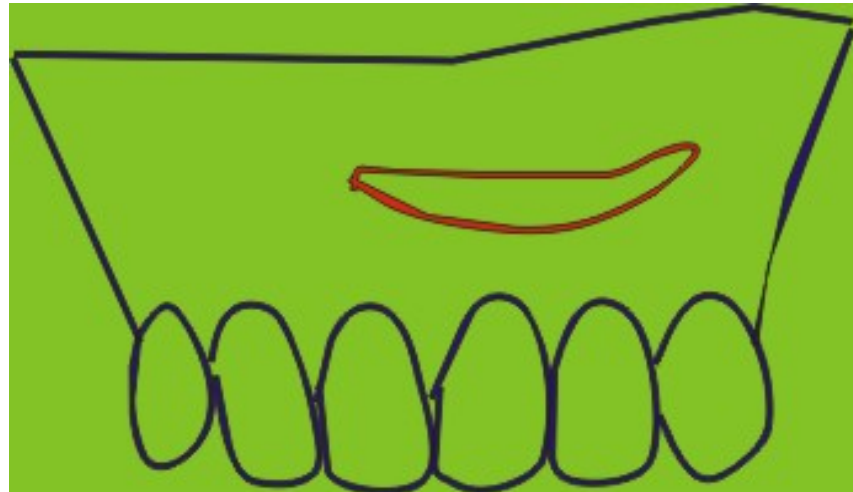
# Intrasulcular Flap (Rectangular)

- Indications
  - Multiple teeth
  - Large lesions
  - Long roots



# Semilunar Flap

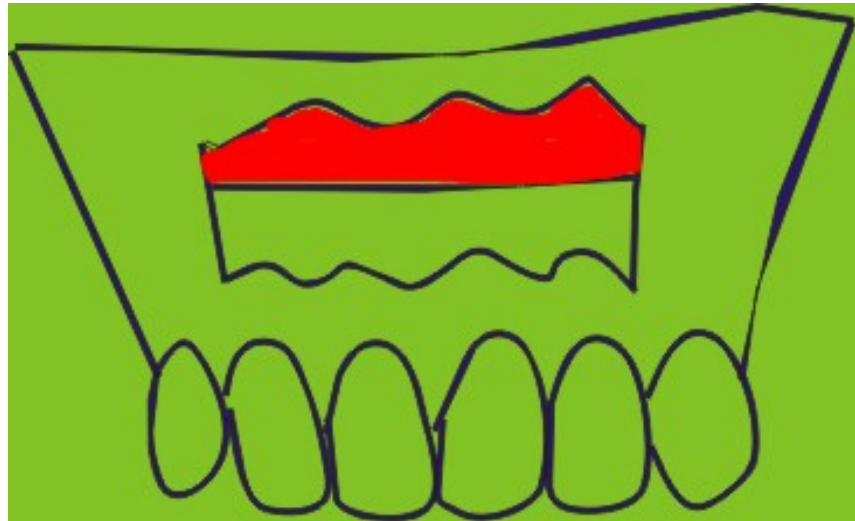
- Indications
  - Esthetic crowns



# Submarginal Flap

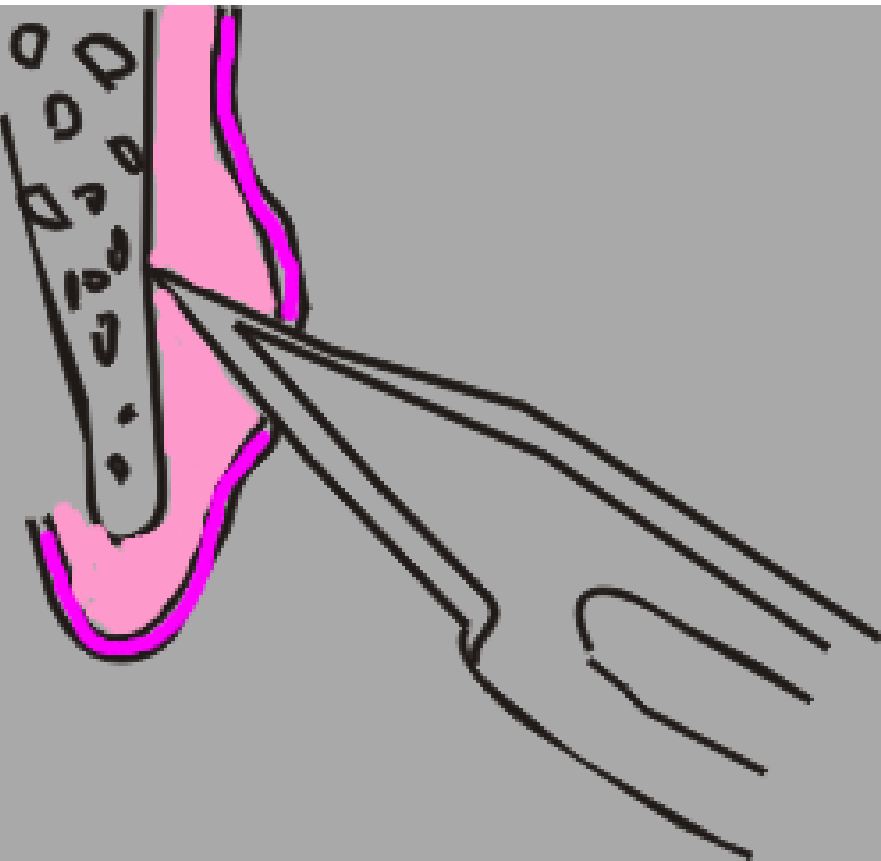
## Ochsenbein-Luebke Flap

- Indications
  - Prosthetic crowns

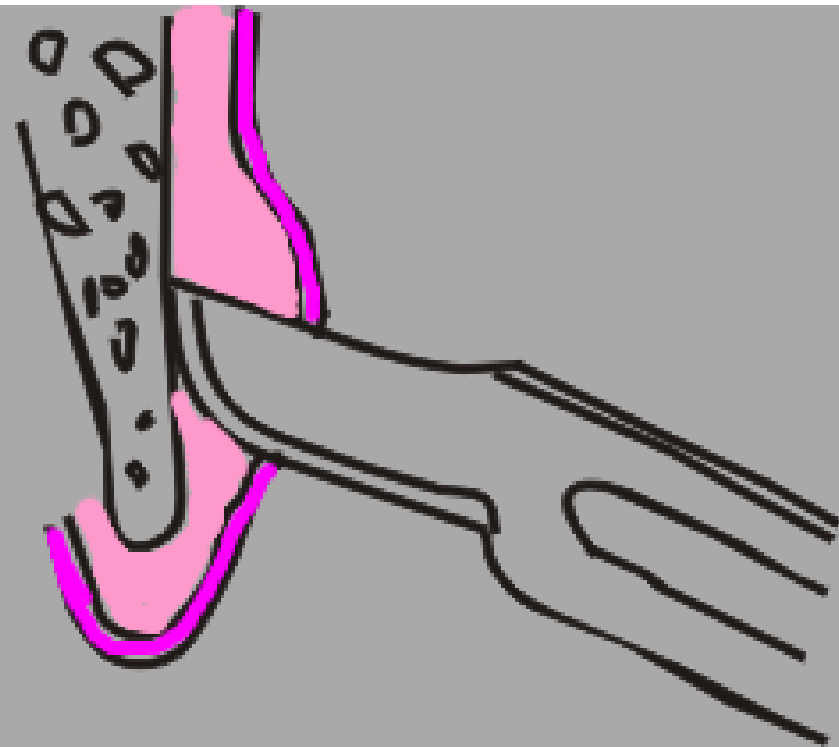


# Incision

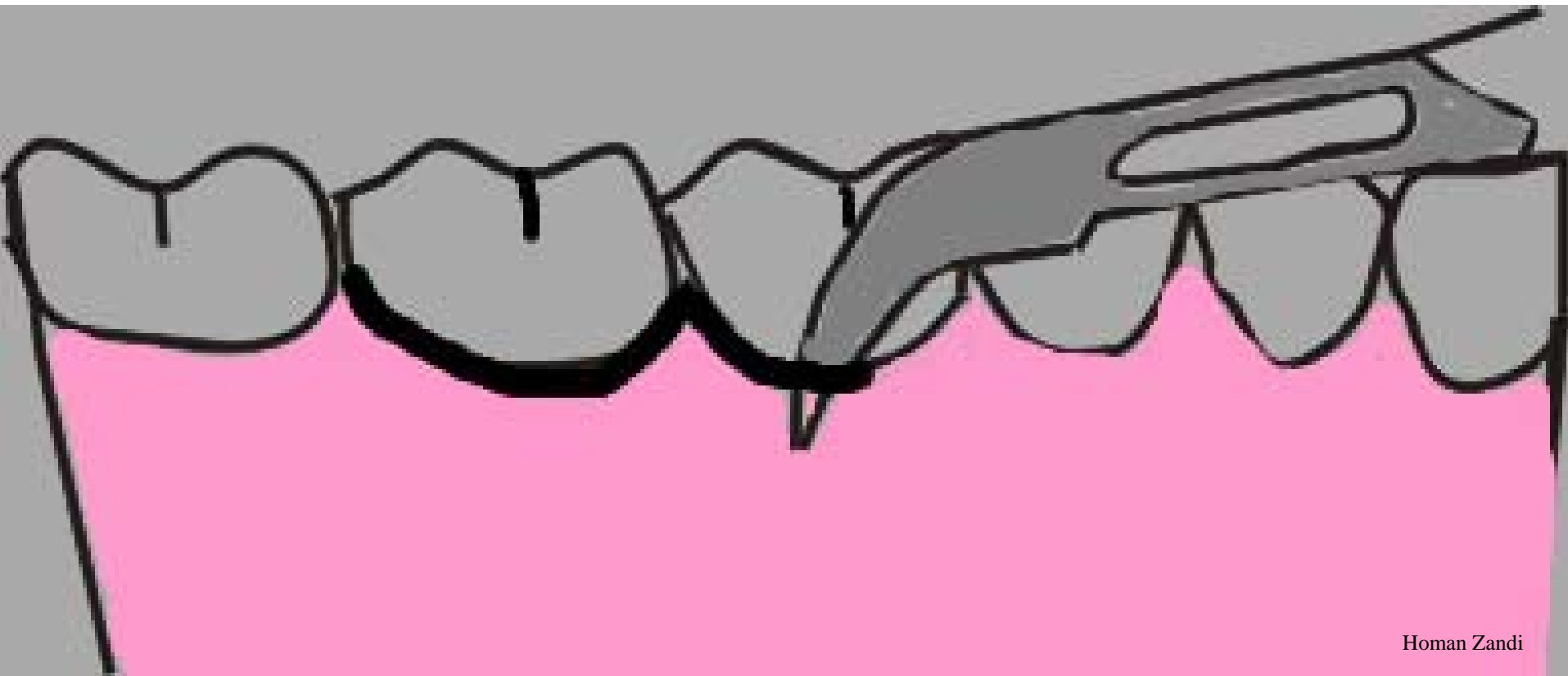
- Tissue should be handled gently
- Sharp dissection should be used
- Careful hemostasis should be attained
- Tension should be avoided



**# 11 Scalpel**



**# 15C Scalpel**



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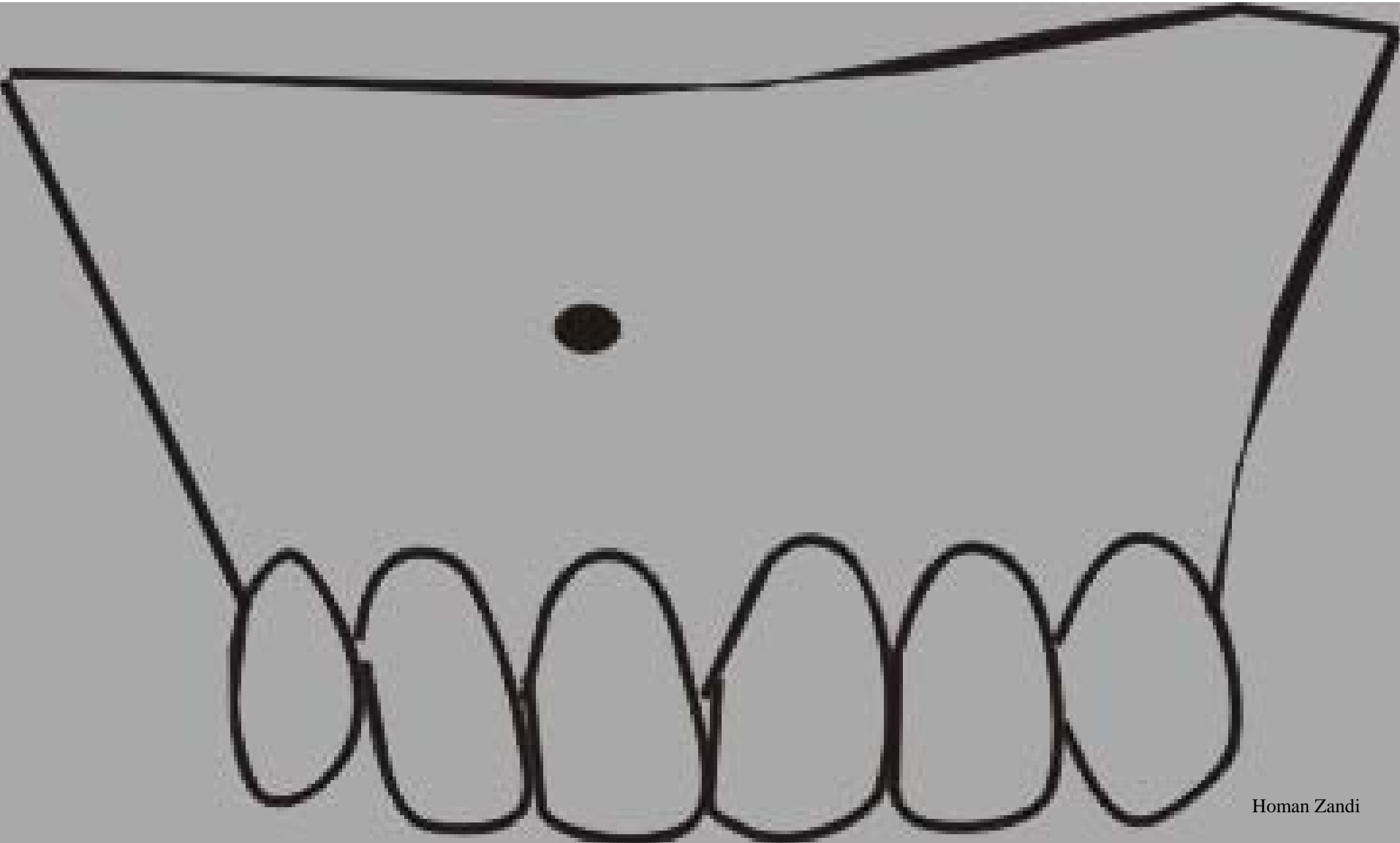
## # 12 Scalpel

Most endodontic surgery problems can  
be avoided by using the following  
incision rules

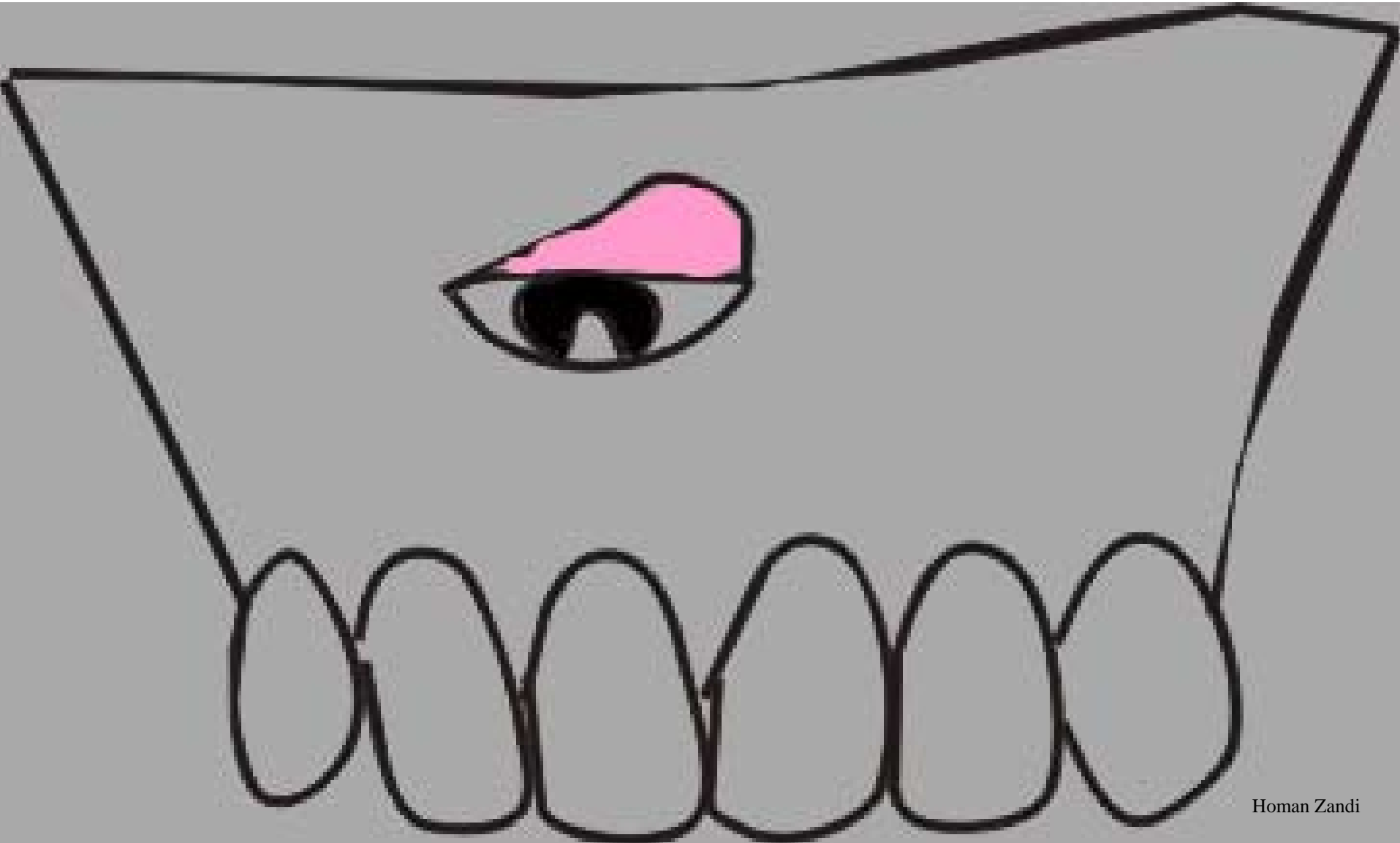
1. Firm continuous incision



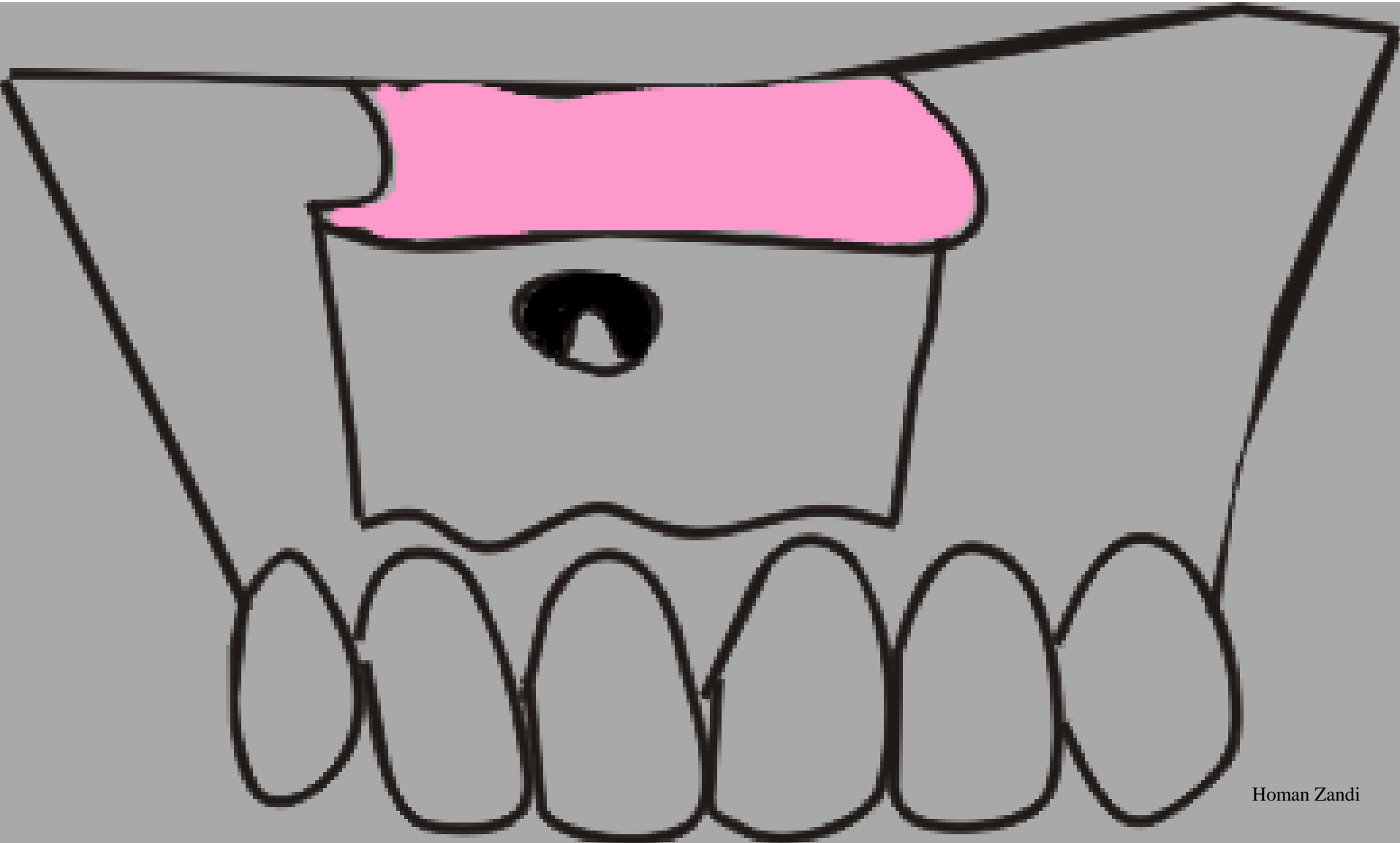
2) An incision should not cross an underlying bony defect



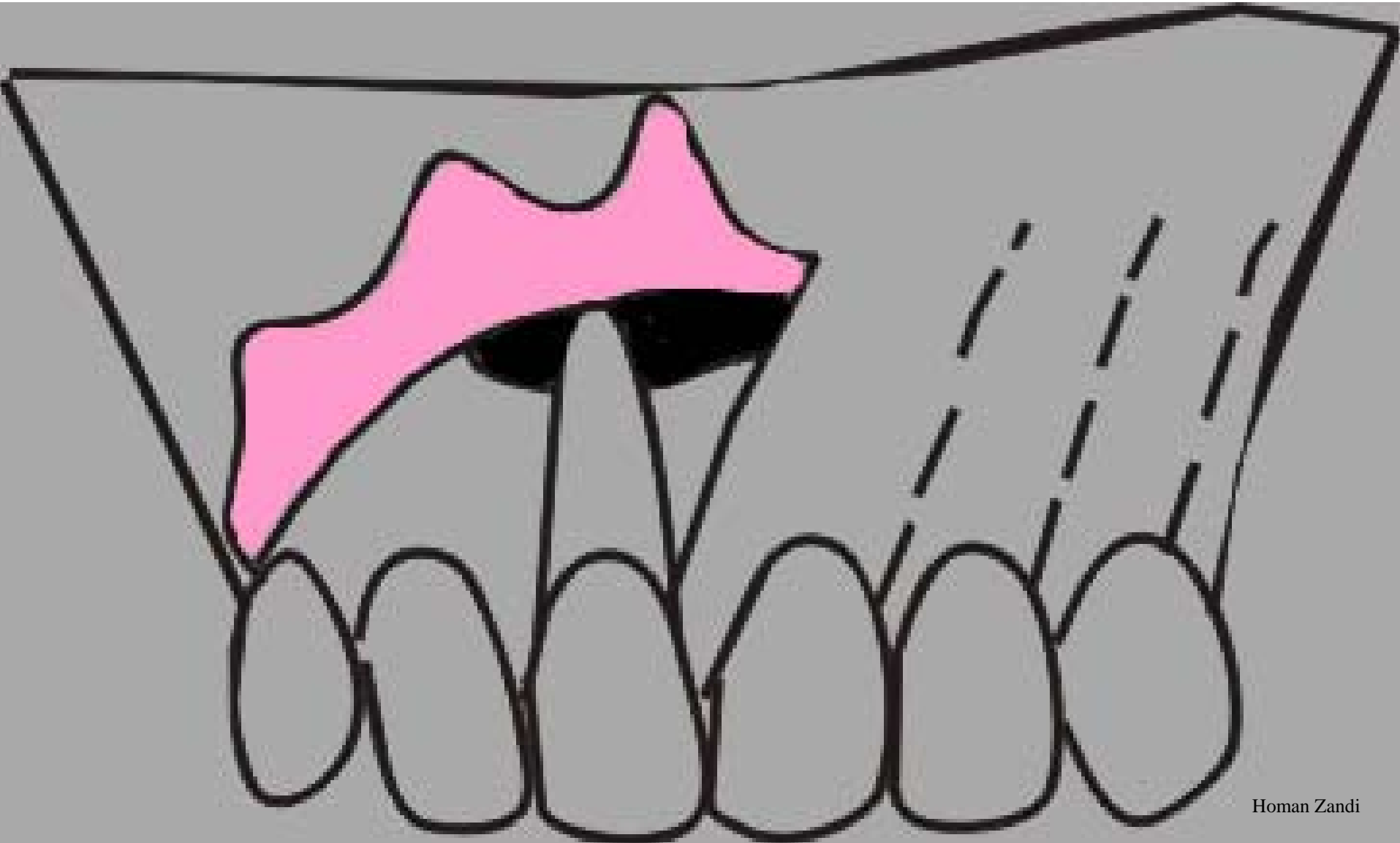
2) An incision should not cross an underlying bony defect



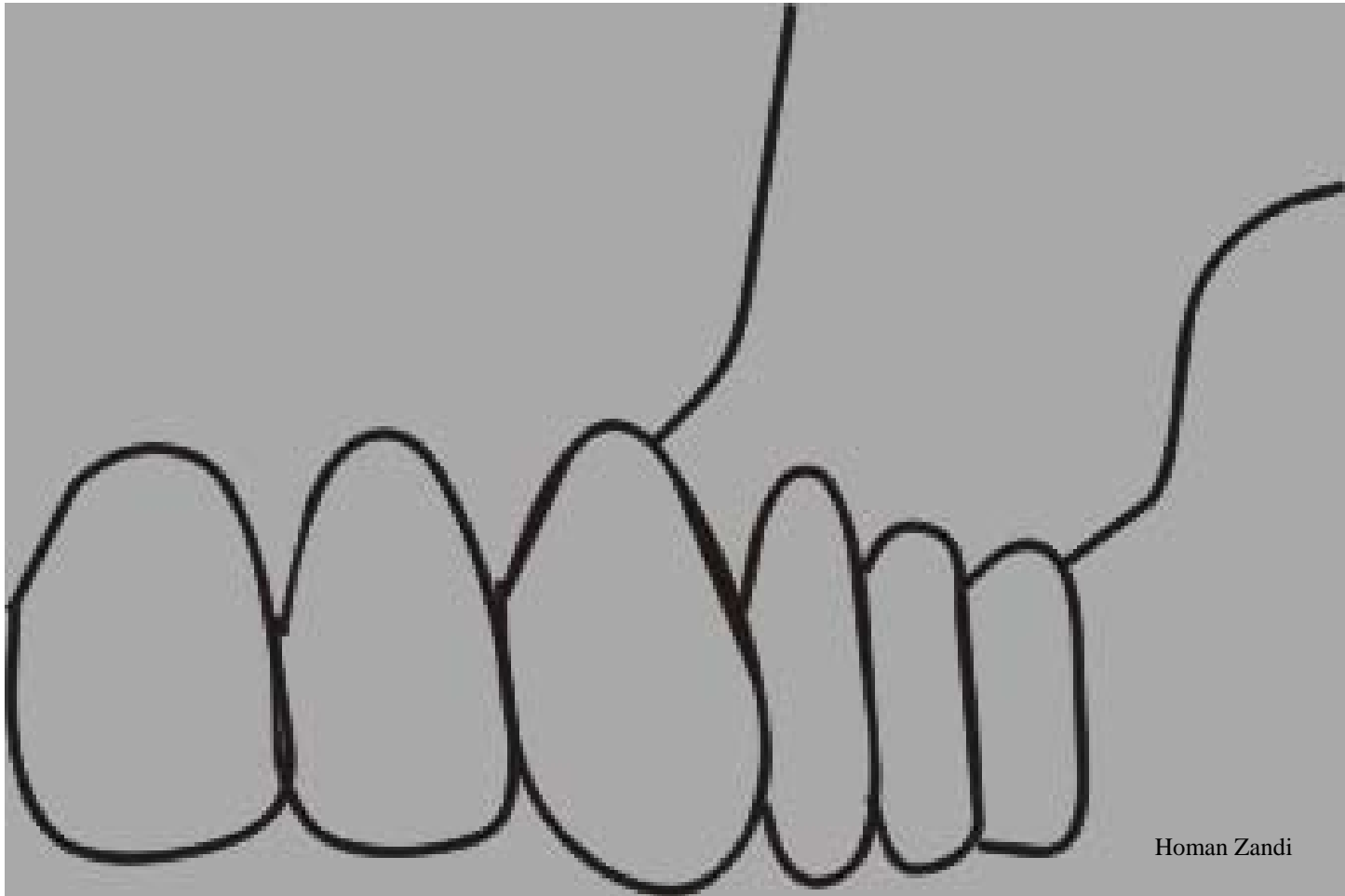
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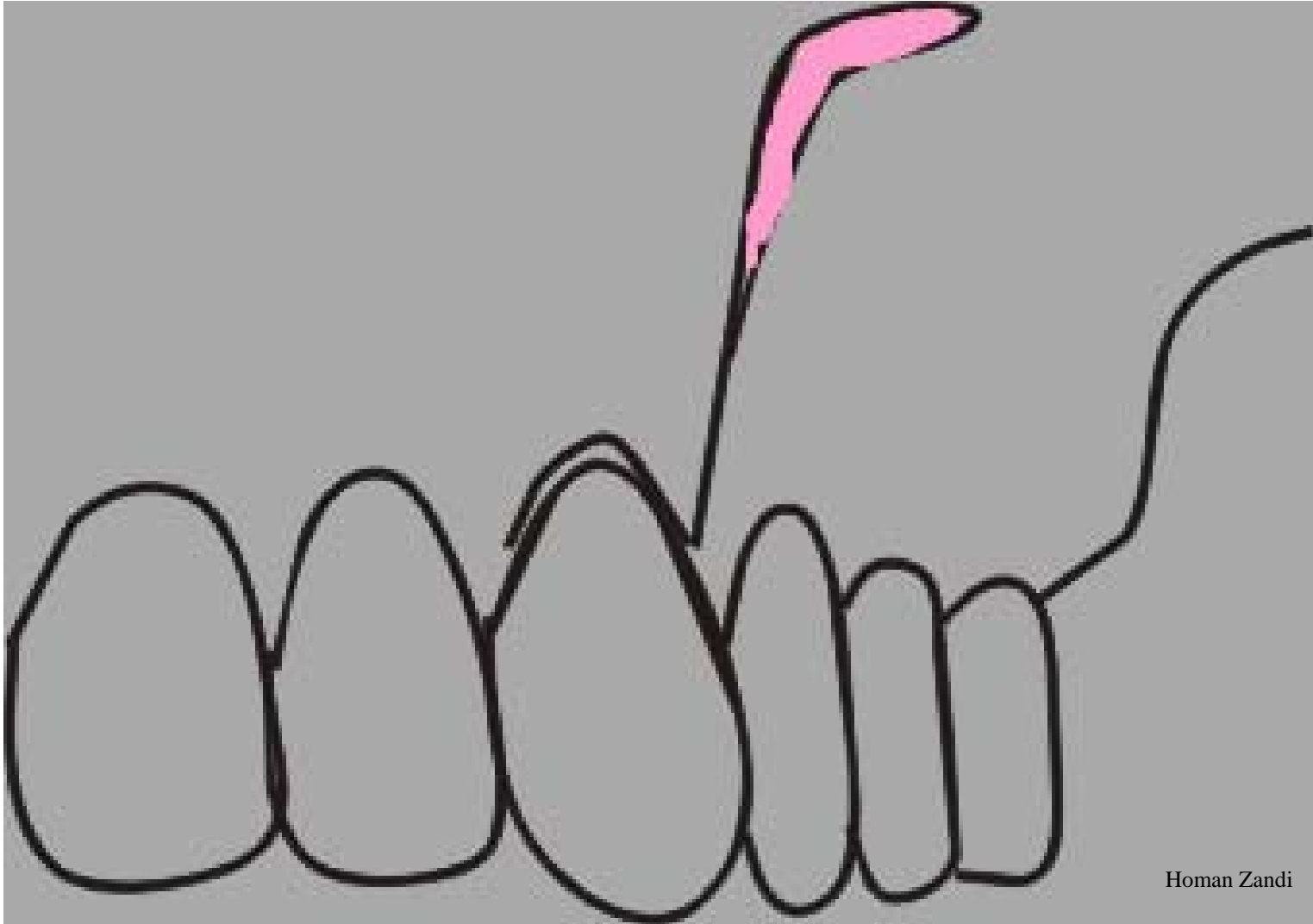
- 3) The vertical incision should be in the concavities between bone eminences



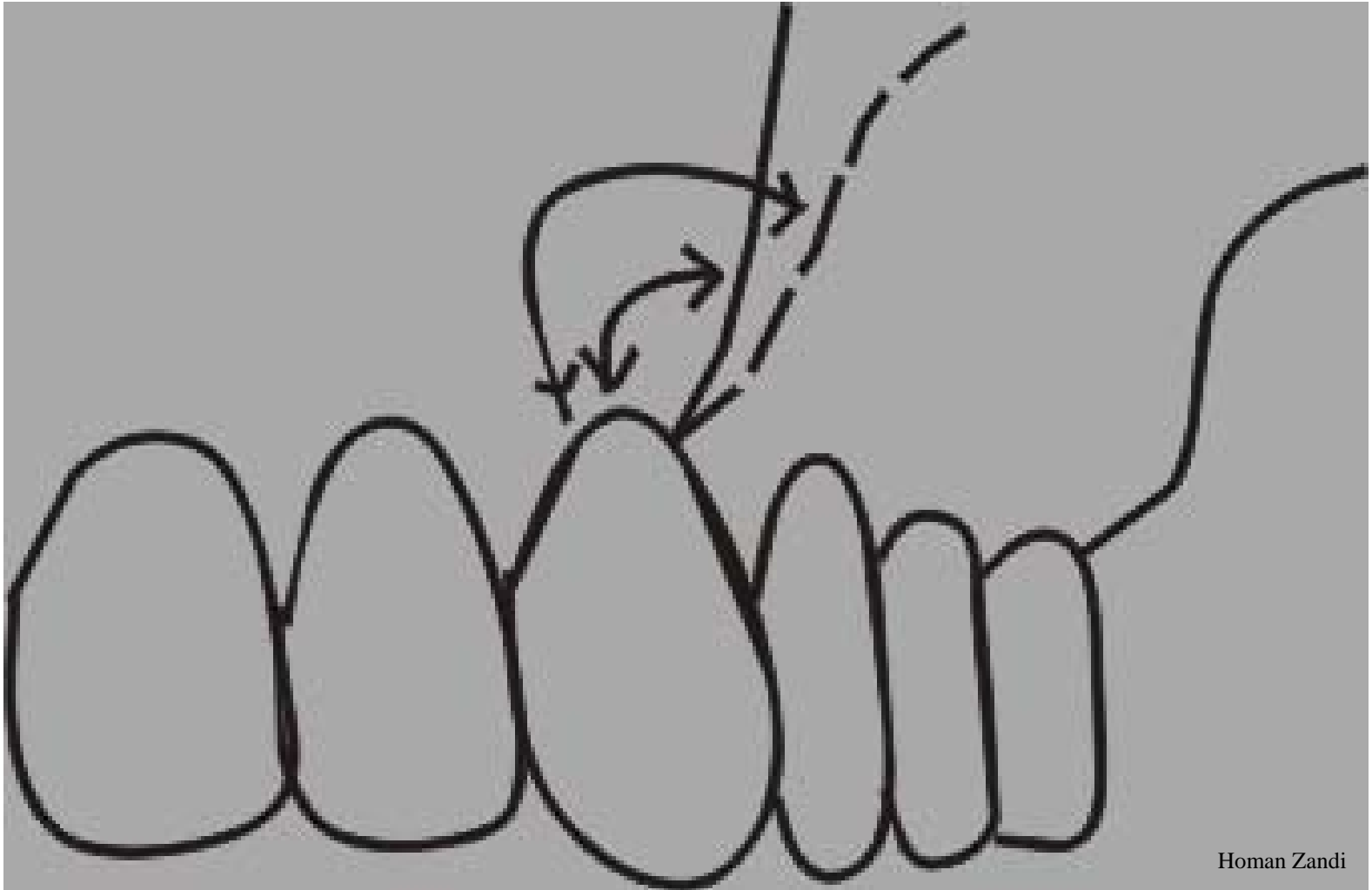


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- 4) The vertical incision should not extend into the muccobuccal fold

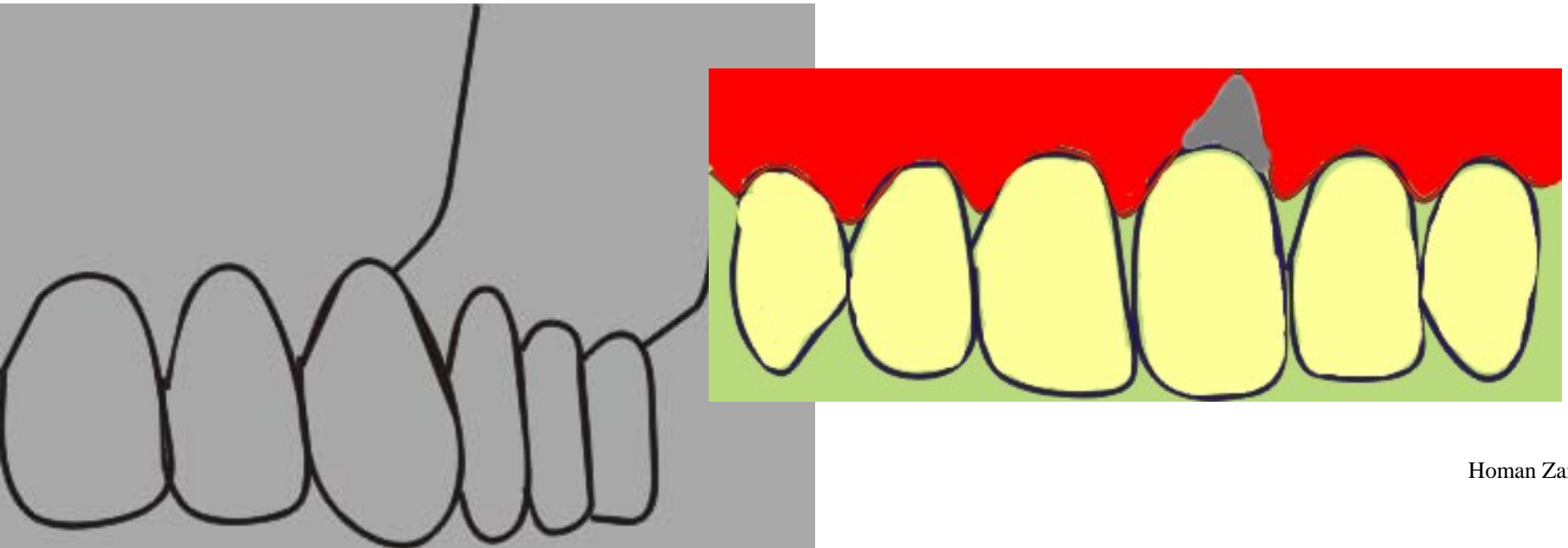


- 4) The vertical incision should not extend into the muccobuccal fold

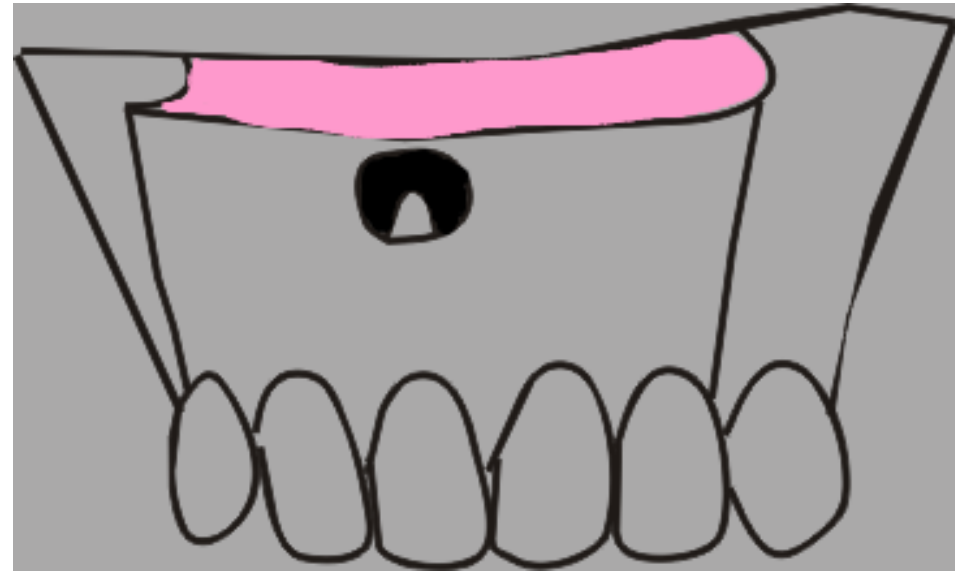
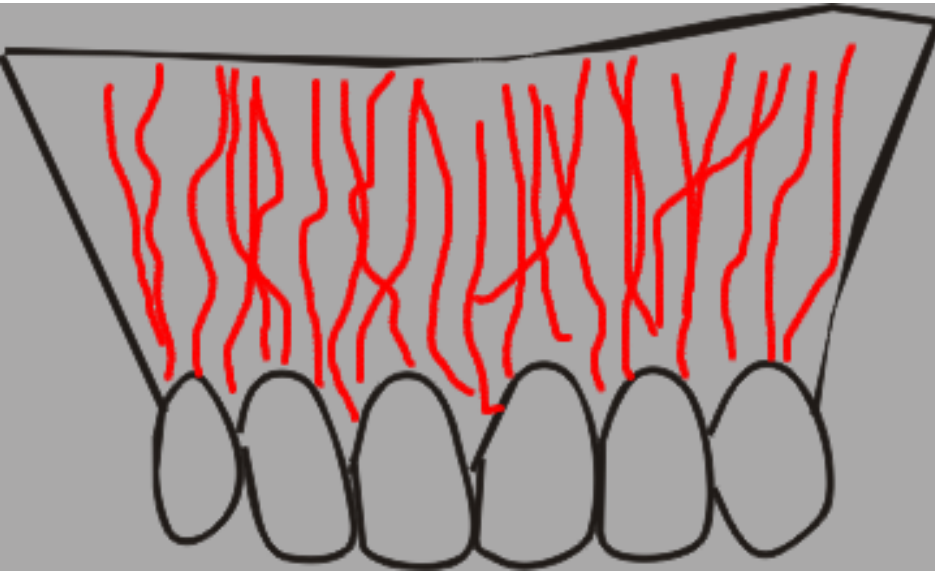


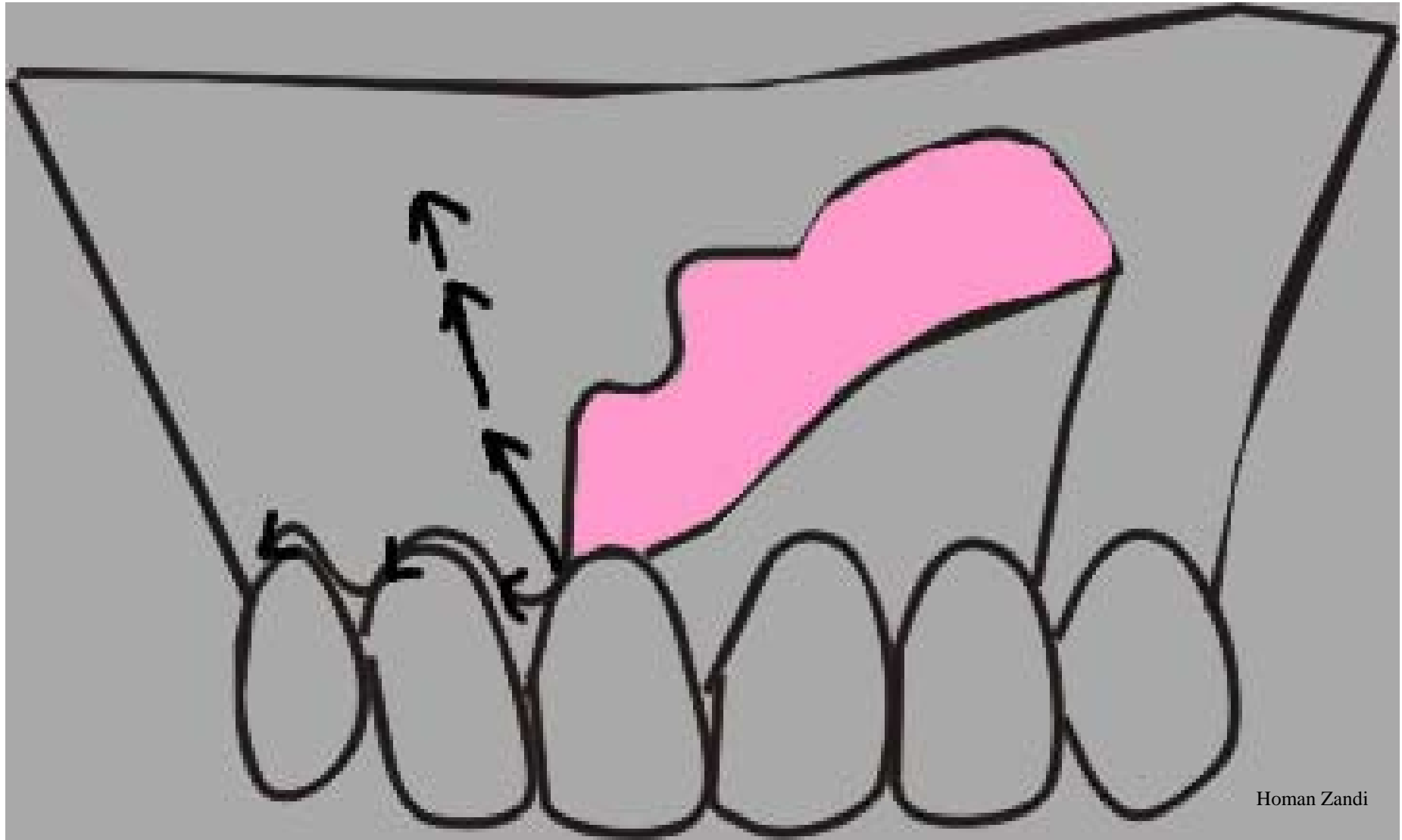


- 5) The termination of the vertical incision at the gingival crest must be at the mesial or distal line angle of the tooth

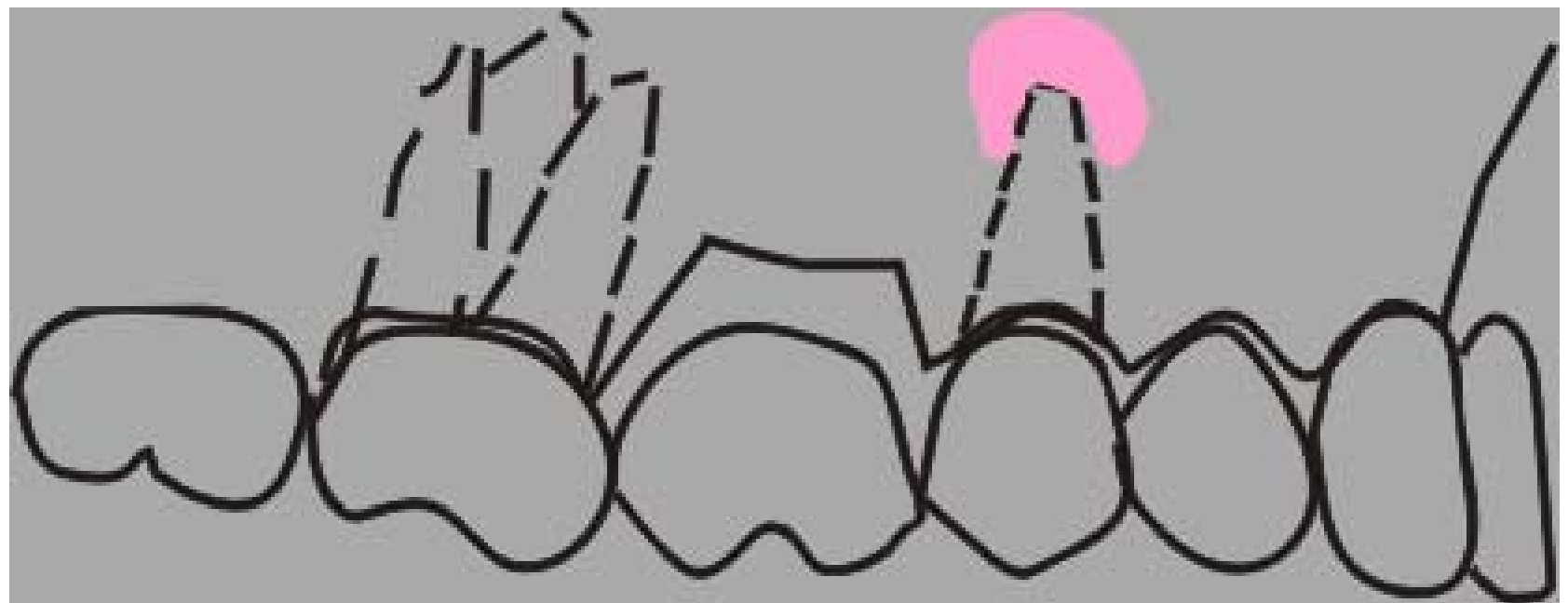
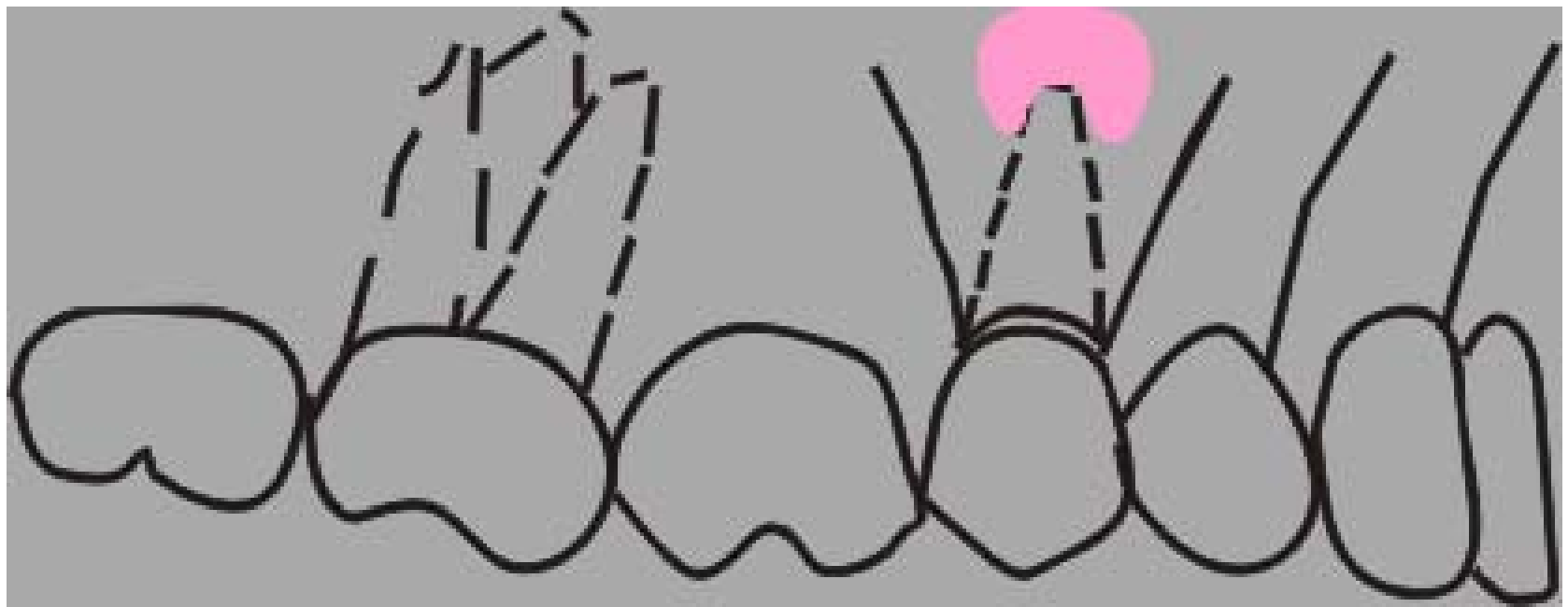


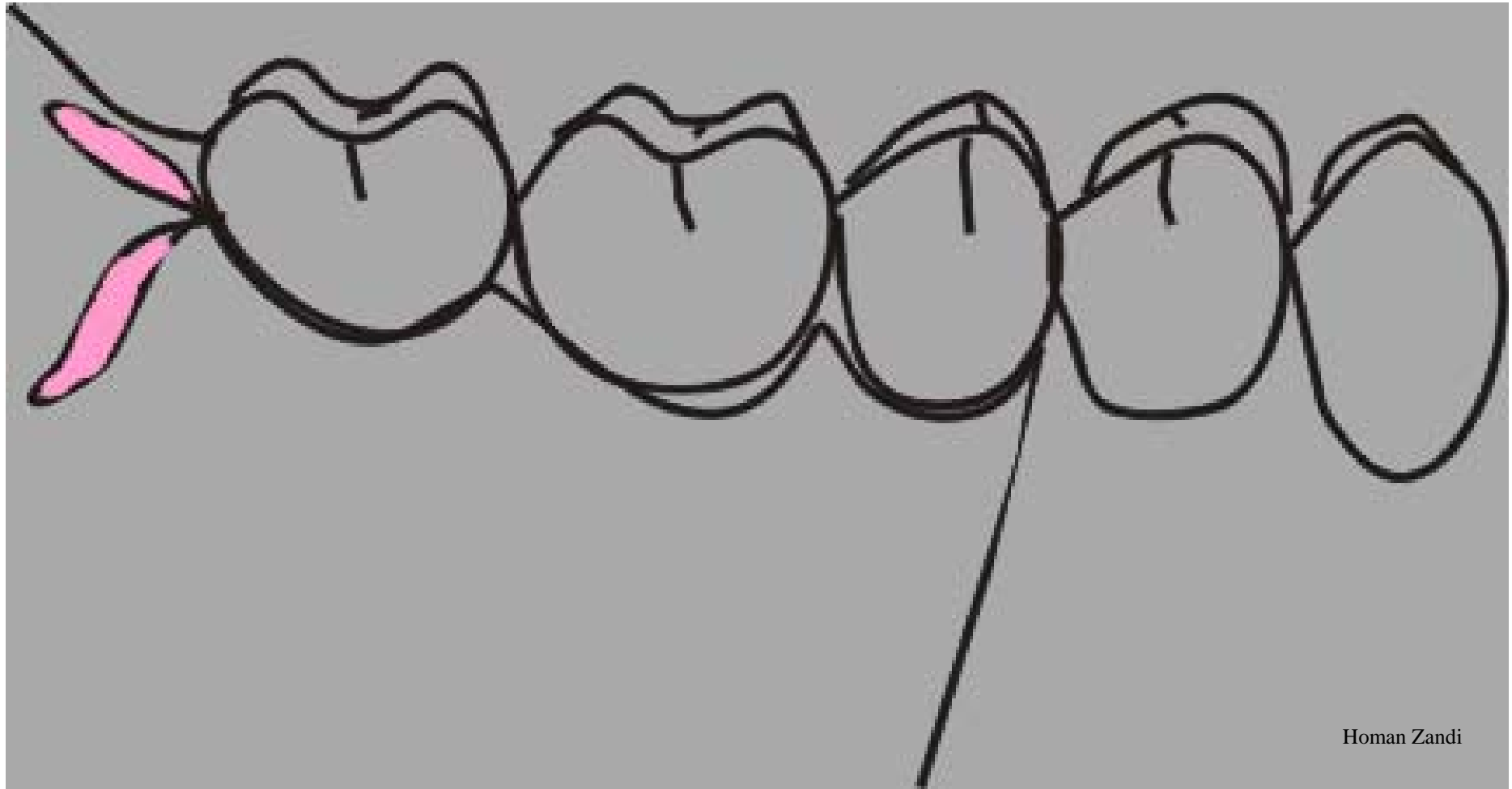
6) The base of the flap must be at least equal to the width of its free end



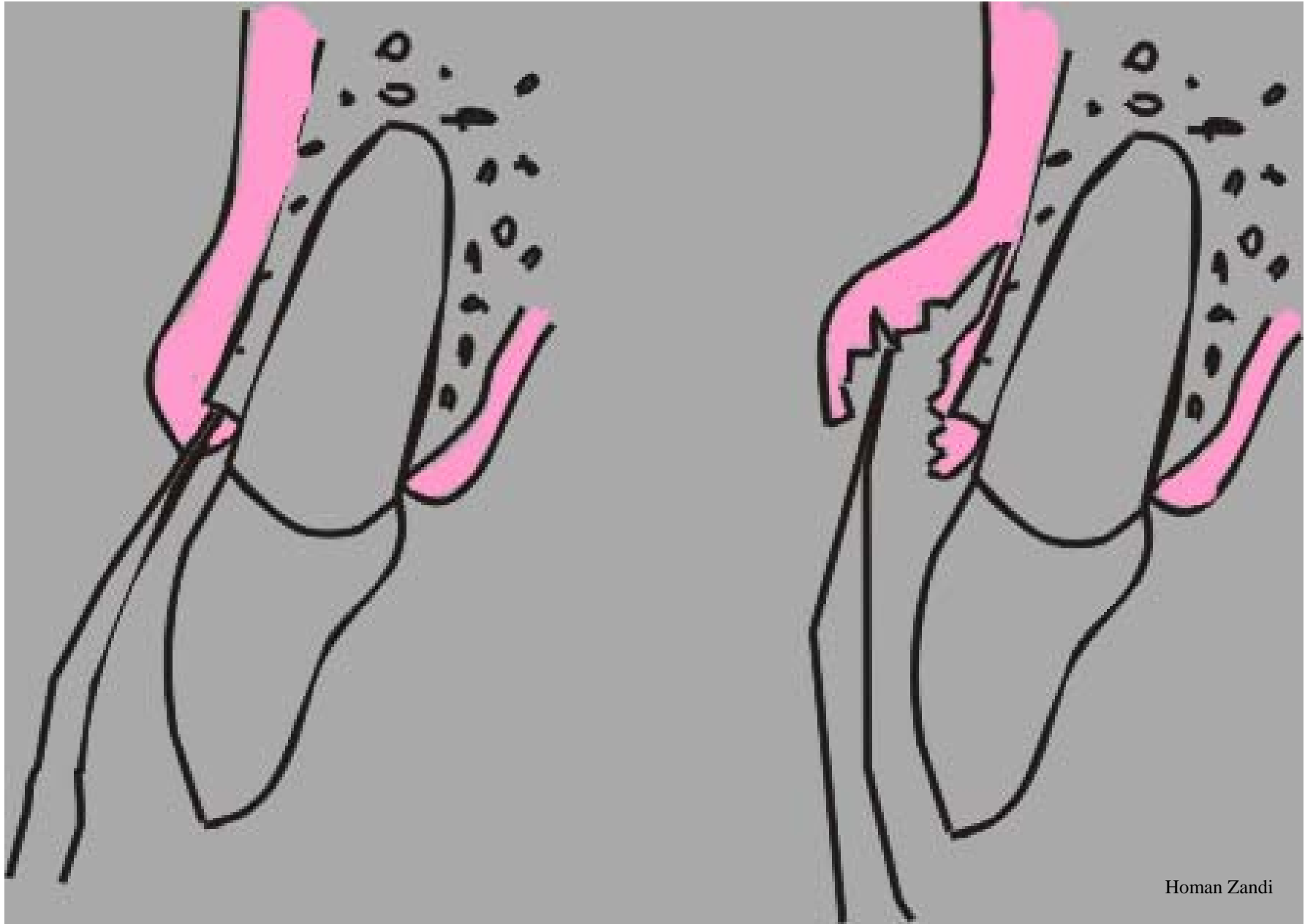


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Most endodontic surgery problems can be avoided by using the following incision rules

- 1) Firm continuous incision
- 2) An incision should not cross an underlying bony defect
- 3) The vertical incision should be in the concavities between bone eminences
- 4) The vertical incision should not extend into the muccobuccal fold
- 5) The termination of the vertical incision at the gingival crest must be at the mesial or distal line angle of the tooth
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