Anterior Partial Coverage Restorations

Department of Prosthodontics & Implantology,
SRM KDC& H
• Indications
• Contraindications
• Advantages
• Disadvantages
• Conventional anterior three quarter crown
• Steps in preparation
• Pin modified three quarter crowns
• Steps in preparation
Indications

• Re-establish anterior guidance
• Splint the teeth
• Can be used in case of bulk teeth
Contraindications

- Short clinical crowns
- As retainers in FPDs
- Endodontically treated anterior tooth
- Active caries and periodontal diseases
- Tooth size should be evaluated
- Deep cervical abrasion
Advantage

- Conservation of tooth structure
- Reduced pulpal and periodontal insult
- Access to supragingival margins and oral hygiene maintenance
- Good seating of the restoration after cementation
- Vitality testing can be done
Disadvantages

• Retention and resistance are less
• Good dexterity of the operator
• Some metal may be displayed
Maxillary canine three quarter crown preparation
Step 1 making of silicone putty index
Step 2 lingual reduction
Step 3 incisal reduction
Step 4 lingual axial reduction
Step 5 proximal axial reduction
Step 5 proximal axial reduction
Step 5 axial finishing
Step 6 Proximal grooves
Step 7 proximal flares
Step 8 incisal offset
Step 9 incisal bevel
Completed preparation
Features of an anterior three-quarter crown and functions served by each:

- Chamfer finish line
  - Structural durability

- Axial reduction
  - Retention and resistance
  - Structural durability
  - Periodontal preservation

- Proximal groove
  - Retention and resistance
  - Structural durability

- Lingual reduction
  - Structural durability

- Flare
  - Marginal integrity

- Incisal offset
  - Structural durability

- Incisal bevel
  - Marginal integrity
Pin-modified three quarter crown preparation
Step 1 making of putty index
Step 2 lingual reduction
Step 3 lingual axial reduction
Step 4 proximal axial reduction
Step 5 axial finishing
Step 6 proximal grooves
Step 7 proximal flares
Step 8 ledges and offset
Step 9 pinholes
Step 10 Incisal
Features of pin-modified three quarter crown and the function served by each:

- **Chamfer finish line**
  - Structural durability
- **Axial reduction**
  - Retention and resistance
  - Structural durability
  - Periodontal preservation
- **Proximal grooves**
  - Retention and resistance
  - Structural durability
- **Flare**
  - Marginal integrity
- **Incisal offset**
  - Structural durability
- **Incisal bevel**
  - Marginal integrity
- **Ledge and pinhole**
  - Retention and resistance
- **Proximal groove**
  - Retention and resistance
  - Structural durability
- **Lingual reduction**
  - Structural durability
- **Trough**
  - Structural durability
- **Ledge and pinhole**
  - Retention and resistance
Reference:


