

Resin onlay restoration of Endodontically treated Premolars

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I. Introduction

With the recent advances in adhesive restorations, a concept of minimal intervention dentistry has been introduced to conserve the tooth structure as much as possible.

Several studies have shown that, provided most of its tooth structure remains, an endodontically treated tooth can be successfully restored by partial coverage using an adhesive, without the post-core technique and a complete-coverage crown.

In the present clinical cases, it is suggested that fiber-reinforced esthetic indirect composite resin restorations (Tescera ATL, Bisco, USA) can be an esthetic and conservative treatment option.

II. Case Presentation

< Case I >

1. Gender/Age: M/58yr
2. Chief Complaint: For final restoration on #15
3. Past Dental History: Root canal therapy on #15
4. Present illness:
 - Post endodontic treated state on #15
 - Decayed state on #16
5. Impression: Endodontically treated state on #15 and Dental caries on #16
6. Tx. Plan: Indirect resin restoration

< Case II >

1. Gender/Age: M/26yr
2. Chief Complaint: For routine check up
3. Past Dental History: N/S
4. Present illness: Decayed state on #25
5. Impression: Dental Caries on #25
6. Tx. Plan: Indirect resin restoration

< Case III >

1. Gender/Age: F/36yr
2. Chief Complaint: For root canal therapy
3. Past Dental History: Undergoing root canal therapy on #34
4. Present illness: #34 - P/R(+), Mo(-)
5. Impression: Acute apical periodontitis
6. Tx. Plan: Root canal therapy & Indirect resin restoration

III. Conclusion

Endodontically treated premolars could be successfully restored by onlay restoration luted with adhesive resin cement, but long term clinical evaluations are necessary.