**Influence of Coronal Restorations on the Fracture Resistance of Root Canal-Treated Premolar and Molar Teeth: A Retrospective Study**

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**Aim**
- To evaluate the influence of different restorations on the fracture of RCT teeth

**Materials & Methods**
- 676 root-filled and restored premolar & molar teeth were included in this study
- Teeth followed up for a mean period of 9.7 ± 2.8 years with a minimum of 5 years.
- **Exclusion**
  1. Teeth extracted due to inadequate RCT or periodontal disease
  2. Teeth that had apical surgery
- Teeth were restored in different ways & the mean survival rates were assessed & statistically analyzed.

**Results**
- The overall survival period was 13.6 (± 0.2) years.
- All teeth with gold partial crowns survived without fractures (n = 24).
- Mean survival rates of teeth restored with:
  a. Crowns and adhesively sealed access cavities = 15.3 yrs.
  b. Crown and bridge restorations = 14 yrs.
  c. Individual metal posts = 13.9 yrs.
  d. Composite fillings = 13.4 yrs.
  e. Prefabricated metal posts = 12.7 yrs.
  f. Amalgam fillings = 11.8 yrs.
  g. Glass Ionomor = 6.6 yrs.
- Teeth with one or two surfaces restored by amalgam, composite or GI showed a significantly lower fracture rate than teeth with three and more restored surfaces (P < 0.05).
- The mean fracture rate of teeth restored with GI was significantly higher when compared with all other groups (P < 0.001).

**Conclusion**
- Metal posts had no significant influence on the fracture rate of RCT teeth.
- Full crowns with adhesively sealed access cavities had comparable fracture rates with crown restorations placed after root filling.
- Gold partial crowns had comparable fracture rates compared with full-coverage crowns.
- Cavities with up to three surfaces were generally successfully restored with composite resins.

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