Replantation of 400 Avulsed Permanent Incisors.

1. Diagnosis of Healing Complications

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**Aim**
- To answer the following questions:
  1) What is the long-term survival rate of replanted incisors?
  2) To what extent do pulpal and periodontal complications occur?

**Materials & Methods**
- 322 patients with 400 avulsed and replanted permanent teeth were treated over a period of 23 yrs. with a mean observation period of 5.1 yrs.
- A standardized post-trauma treatment and follow-up procedures were performed.
  
  **Inclusion criteria**
  a- Teeth without complicated crown fractures (pulp exposures) or root fractures
  b- Adequate information of details related to the accident (type and length of extra-oral storage)
  c- A radiographic examination which enabled diagnosis of concomitant injuries
  d- A follow-up period of at least 1 yr. unless extraction was made before that time

  **Exclusion criteria**
  a- Hx. of a previous dental injury
  b- Extensive restoration of the tooth
  c- RCT prior to injury
  - The age of the patients at the time of replantation ranged from 5-52 yrs.
  - At the follow-up period, pulpal and periodontal healing were monitored by clinical examination, mobility testing and radiographs.

**Results**
- Pulpal healing was in 32/94 teeth with incomplete root formation (34%).
- PDL healing, with no evidence of external root resorption was 24%.
- PDL healing was significantly higher in teeth with complete root formation and a constricted apical foramen.
- Gingival healing was 93%
- During the observation period, 30% were extracted.
- Tooth loss was slightly more frequent in teeth with incomplete root formation at the time of replantation than in teeth with completed root formation.

**Conclusion**
- The long-term prognosis is not optimal, especially in teeth with incomplete root formation.
- The explanation for greater tooth loss in the teeth with incomplete root formation is undoubtedly related to the greater speed of root resorption and less tooth substance to be resorbed.

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