

Inquiry on practices in endodontically-treated-tooth restoration

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INTRODUCTION: The restorations performed on endodontically-treated teeth (RCR) are many and varied. Three objectives are described in the report of the ANAES (National Agency for Accreditation of Health Establishments): retention of the coronary restoration, reinforcement of corono-radicular cohesion and ensuring the durability of the tooth on the dental arch at the biological and structural level. [1]. Few studies on the clinical practices in France have been published on this set of themes. One of the rare studies available, Sabek's study, 1997, [2], is no longer in relation with current practice, given the development of materials and techniques. To try to highlight the state of the practice of RCR in France, a questionnaire was developed for use in an investigation carried out at the end of a postgraduate training session on this topic. The analysis of the data made it possible to check the assumption of adequacy between the initial, post-university training, professional experience, and the data of the literature.

METHODS: The anonymous questionnaire intended for the experts was drawn up with the aim of being exhaustive while remaining limited in length. The items selected depended on the two direct and indirect types of corono-radicular reconstitution. The questionnaire was tested on a group of 15 private expert practitioners and modified for better comprehension of the terminology according to remarks made by this reference group. The investigation concerned a population of experts interested in the subject at a meeting of the French Dental Association (ADF) on the topic "Reconstruction of the non-vital tooth".

RESULTS: One hundred seventy six questionnaires were collected. By comparing the data with those collected in 1997 [2], some noteworthy points were brought out: Glass ionomer cements, and in particular resin modified glass ionomer cement (RMGIC), have acquired an important place in recent years. Composite resins are slowly replacing amalgam as the material inserted in the plastic phase. The use of fiber posts is becoming increasingly widespread.

The materials necessary for the reconstruction of non-vital teeth are heterogeneous. No coherent unit used by a majority of experts was highlighted by this investigation. The use of adhesive systems showed certain inadequacies. It appears that the systems with 2 clinical steps are preferred. The adhesive system used by more than a third of the participants is photopolymerizable. The reconstruction resin is also photopolymerizable for half the participants. A current trend is the increasingly frequent use of translucent fiber posts. The number of posts inserted per reconstitution is one for premolars but, for molars, half the experts questioned place only one post while the others use two. The reconstruction techniques used for non-vital teeth are direct and indirect whatever the position of the tooth on the dental arch. Inlay-cores are part of everyday practice, preferably made out of non-precious alloys, in spite of the risks of corrosion. The choice of sealing cements is particularly between CVI and cement with zinc phosphate.

DISCUSSION & CONCLUSIONS: The comparison of the data between the age classes of the experts showed that the oldest experts had kept up to date with new techniques and materials. Doubt persists, however, on the correct training of the experts on the most recent materials, in particular adhesive systems and the reconstitution resins used with the fiber post. The results of this investigation gave useful information but it should be noted that the experts questioned were particularly aware of this subject since all these people had chosen to attend a meeting on the topic of the reconstruction of the non-vital tooth.

REFERENCES: ¹ ANAES (2003) Service d'évaluation technologique *Indications et contre-indications des reconstitutions corono-radiculaires préprothétiques coulées et insérées en phase plastique*, ² M Sabek. (1997) A propos des reconstitutions corono-radiculaires: 3^{ème} partie Les techniques utilisées en France en 1996. *Cah Prothèse* **99**:5-9.