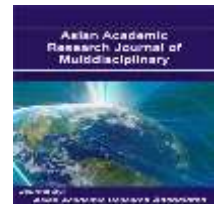




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HISTOLOGICAL OBSERVATION OF COPPER SULFIDE IN VITRO OF EXTRACTED TEETH

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Abstract

Purpose: To provide accurate histological data of copper hydroxide action into canalardental radicular. Recently, transcanalar endodontic with induction has received a big development in addition to other techniques that magnify the results in difficult endodontic treatments. It is known that in the teeth with complex anatomy, the failure rate is major, despite the improvement of endodontic treatment techniques.

Method: We took for the study 20 extracted teeth. The first group, with 10 untreated teeth extracted for orthodontic or prosthetic purposes (control group). The second group, with 10 treated teeth in 2-3 sessions with copper sulfide in a time interval of every 8 days. They were fixed in 10% formalin, subsequently were done the decalcification and put into paraffin blocks for histological slides. Slides were done in longitudinal and horizontal sections. Coloration of slides were done with hematoxylin and eosin. The slides were observed through microscope with 100-400 x magnification.

Results: In all preparations obtained in this study, was surveyed the presence of copper sulfide along dentin canalardicular. In the apical delta was observed the diffusion of copper sulfide particles and engagement of dentinal walls during the whole length of the dentinal walls canals. This was evidenced in all the slides examined to our experiment.

Conclusions: Inductive endodontic with copper hydroxide guarantees the sterilization of entire length of radicular canal and apical delta, too.

Keywords: apical delta, copper hydroxide, copper sulfide, histological slides, transcanalar endodontic

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