

## **Propolis Helps Preserve Viability of Knocked-Out Teeth**

### **Propolis as Storage Media for Avulsed Teeth: Microscopic and Morphometric Analysis in Rats**

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The maintenance of the avulsed teeth in appropriate media for preserving the cellular viability has been important for repairing the periodontal ligament and preventing the root resorption after tooth reimplantation.

Propolis is a substance capable of preserving cellular viability. This study aimed to analyze the propolis substance as a storage media for maintaining the avulsed teeth, besides to determine the ideal time period for keeping the tooth inside it.

Thus, 60 maxillary right central incisors of rats were extracted and divided into five groups. In groups I and II, teeth were kept in propolis for 60 min and 6 h, respectively; in group III, teeth were kept in milk for 6 h; in group IV, teeth were kept dry for 60 min; and in group V, they were immediately reimplanted. All teeth had their root canals filled with calcium hydroxide paste. Following, teeth were reimplanted in their sockets. After 15 and 60 days, animals were killed and the obtained samples were processed in laboratory for microscopic and morphometric analyzing.

The results showed that the occurrence of inflammatory resorption, dental ankylosis and the formation of the connective tissue parallel to the root surface were similar among groups. It could be verified a greater occurrence of replacement resorption in group IV when comparing to other groups.

In groups I and IV, the presence of periodontal ligament-like connective tissue was substantially smaller than the other groups. Regarding to the cementum amount over the root, it could be observed that this was present in smaller amount in groups I and IV. Group II was similar to groups III and IV.

Therefore, according to the results of this study, the use of propolis as a storage media for maintaining avulsed teeth could be highlighted, and the 6-h period was more appropriate than the 60-min period.

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