

## Brazilian Oral Research

Print version ISSN 1806-8324

### Abstract

[GOMES, Mica Fernandes](#) et al. Densitometric analysis of the autogenous demineralized dentin matrix on the dental socket wound healing process in humans. *Braz. oral res.* [online]. 2006, vol.20, n.4, pp. 324-330. ISSN 1806-8324. doi: 10.1590/S1806-83242006000400008.

The aim of this study was to evaluate the effects of the autogenous demineralized dentin matrix (ADDM) on the third molar socket wound healing process in humans, using the guided bone regeneration technique and a polytetrafluoroethylene barrier (PTFE). Twenty-seven dental sockets were divided into three groups: dental socket (Control), dental socket with PTFE barrier (PTFE), and dental socket with ADDM slices associated to PTFE barrier (ADDM + PTFE). The dental sockets were submitted to radiographic bone densitometry analysis and statistical analysis on the 15<sup>th</sup>, 30<sup>th</sup>, 60<sup>th</sup> and 90<sup>th</sup> days using analysis of variance (ANOVA) and Tukey's test ( $p \leq 0.05$ ). The radiographic analysis of the ADDM + PTFE group showed greater homogeneity of bone radiopacity than the Control group and the PTFE group, during all the observation times. The dentin matrix gradually disappeared from the dental socket during the course of the repair process, suggesting its resorption during the bone remodeling process. It was concluded that the radiographic bone density of the dental sockets treated with ADDM was similar to that of the surrounding normal bone on the 90<sup>th</sup> day. The ADDM was biocompatible with the bone tissue of the surgical wounds of human dental sockets. The radiographic analysis revealed that the repair process was discreetly faster in the ADDM + PTFE group than in the Control and PTFE groups, although the difference was not statistically significant. In addition, the radiographic image of the ADDM + PTFE group suggested that its bone architecture was better than that of the Control and PTFE groups.




Keywords : Bone regeneration; Dentin; Tissue engineering.

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