

PhD in Dental Medicine

Research Area: Periodontology

Title: Prospective controlled clinical study for evaluation of bone regeneration in post extraction alveolar ridge preservation using an autogenous dentin graft in comparison with a xenograft

Alveolar bone changes following tooth extraction are unavoidable. Hence, maintaining alveolar bone volume is prerequisite for ideal functional restorations and esthetics. Extracted teeth are still considered a clinical waste and therefore being discarded. Dentin has inorganic and organic components that are very similar to those of human bone. Recently, the “Smart Dentin Grinder” provides an method for processing extracted teeth into particulate dentin that can be immediately grafted into extractions sockets as a bone grafting material. The aim of this study was to prospectively evaluate the clinical, radiographic (CBCT-densitometric analysis), histological and histomorfometric outcome of the autogenous dentin graft material compared to a xenograft (inorganic bovine bone Bio-Oss) in post-extraction alveolar bone augmentation.

Keywords: Auto-tooth bone, Autogenous particulate dentin graft, dentin, graft material, tooth extraction, socket preservation, ridge augmentation

Supervisors: Professor Doutor Paulo Mascarenhas (Supervisor), Professor Doutor Gil Alcoforado (Co-supervisor)

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