

Tissue regeneration procedures for alveolar preservation: a systematic review

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After tooth extraction, a physiological process of alveolar bone resorption begins. The surrounding soft tissues also undergo changes. The replacement of the lost tooth by means of implants can be difficult or even prevented by the lack of hard tissue for anchoring and stability of the implant. The lack of soft tissue impairs the aesthetic result and longevity of the work due to loss of protection of the implant/prosthetic part transition zone. For these reasons, research seeks to investigate the use of allogeneic and/or xenogeneic materials to preserve bone structure after tooth extraction through selective repopulation of cells and tissues. The objective of this study was to systematically review the literature in search of randomized clinical trials carried out in humans who underwent tooth extraction associated or not with tissue regeneration for alveolar preservation with a view to rehabilitation with osseointegrated implants. The scientific literature was surveyed and 597 studies were found in Pubmed, Web of Science, Embase, Scopus, Cochrane and Lilacs/BBO databases. After removal of duplicates, analysis process and final selection of studies, 10 randomized controlled trials were included in the qualitative analysis. The results indicate that sockets treated with bone graft with allogeneic/xenogeneic material present greater reduction of the bone defect after extraction than sockets in spontaneous healing. This review encourages the performance of alveolar

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regeneration procedures to optimize rehabilitation through dental implants. The protocol of this systematic review was registered in PROSPERO (CRD42021248413) and followed the PRISMA recommendation rules (Key Items for Reporting Systematic Reviews and Meta-analyses).

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