Hard tissue augmentation for alveolar defects before implant placement

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of
Background. Often when planning implant therapy, there is a need to augment or replace bone that has been lost. The alveolar defects may occur as a result of tooth loss due to extraction, advanced periodontal diseases or trauma, long term use of removable appliances, dehiscence and fenestration defects, developmental defects/clefts, congenitally missing teeth and odontogenic cysts and tumors. Insufficient bone volume can be brought about by hard tissue augmentation. This techniques have led to increased predictability in reconstruction of alveolar ridge defects and functional implant placement. Purpose. To describe the methods of hard tissue augmentation which can be done with block grafts (autografts and allografts), particulate grafts (cortical and cancellous), xenografts, or synthetic materials. Review. The reconstruction of a normal alveolar housing, in height and width, is imperative to achieve a harmonious balance between biology, function, and aesthetics. Depending on the size and morphology of the defect, horizontal or vertical, various augmentation procedures can be used. Soft tissue management is a critical aspect of hard tissue augmentation procedures. Incisions, reflection, and manipulation should be designed to optimize blood supply and wound closure. The design and management of mucoperiosteal flaps must consider the increased dimensions of the ridge after augmentation as well as esthetics and approximation of the wound margins. The surgical procedure needs to be executed with utmost care to preserve the maximum vascularity to the flap and minimize tissue injury. Conclusion. Alveolar ridge defects can be classified by using SeibertÃf¢Ã,€Ã,ÂTMs classification or HVC System. The treatment of alveolar ridge defect before implant placement can be done with hard tissue augmentation.
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