

Augmentation of a bone defect in the maxillary posterior region with sticky bone (combination of xenograft and PRF) as a prerequisite for implant placement

Assoc. Prof. Biljana Evrosimovska, PhD ; Doc. Bruno Nikolovska, PhD Spec. Ana Gigovska Arsova, Prim. Zaklina Menceva, PhD

Introduction: Dental implant installation requires a quality and quantity of alveolar bone sufficient to support implantation. Guided bone regeneration or GBR is most often used when there is inadequate bone for implant placement.

Aim: In this study was performed alveolar ridge preservation confirming the potential use of bovine hydroxyapatite xenograft and PRF in the treatment of bone defects.

Material and methods:

Its an alloplastic grafting material with excellent osteoconduction characteristic, which creates an osteoconductive lattice that stimulates bone ingrowth into a defect and becomes osteogenic in the presence of bone.



Bovine hydroxyapatite xenograft



The PRF clot was gently pressed into a membrane in PRF box, and bone graft material mixed with A-PRF cut on pieces.

Fibrin clot

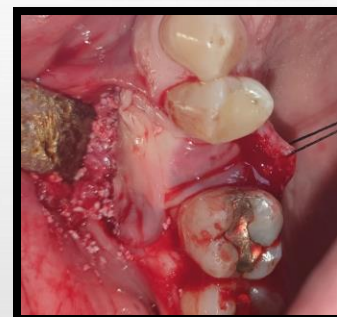


Platelet-rich fibrin (PRF) is a biologically active material used for bone regeneration, which can enhance the efficacy of angiogenesis, tissue regeneration and neovascularization, regulate reparative inflammatory response and decrease postoperative edema and pain.

Case report:



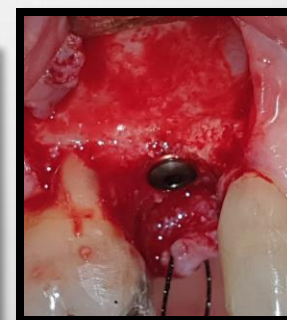
Radix gangrenous of second upper premolar



Applied A-PRF membrane over the sticky bone



Intraorally after 5 months of GBR



Implant placement, X-Ray of implant placement after 3 months



gingiva former



abatement



porcelain crown.

Conclusion:

The combination of bovine hydroxyapatite xenograft and PRF on the treatment of bone defects led to the achievement of outstanding results with good radiological and clinical backings.