

## Tent-Pole Technique with Xenograft and I-Prf for Augmentation

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## Abstract

**Introduction:** Traumatic tooth extraction, external trauma and long-term edentulousness cause alveolar crest resorption. Bone augmentation procedures may be needed to obtain proper bone volume before implant placement for resorbed alveolar crest.

The aim of this case report is to describe the augmentation of severe horizontal bone defect in the maxillary anterior zone with tent-pole technique together with sticky-bone obtained by I-prf and xenograft mixture.

**Case Report:** Horizontal bone deficiency was seen on tomography. In order to be able to position the implant correctly in the anterior zone, bone-regeneration directed by tent-pole technique was performed for horizontal bone augmentation. Bovine bone graft was mixed with I-prf and sticky-bone mixture was obtained. At implant area, alveolar bone was decorticated, two screws are fixed to form a roof over the alveolar bone and the resulting sticky-bone was placed. The implant area was covered with collagen membrane and stabilized with matrix sutures. 6 months were waited for bone regeneration. After bone augmentation, implants were placed in the proper position.

**Discussion & Conclusion:** Many treatment alternatives and graft materials are suggested in cases with alveolar bone deficiency. One of them is using the xenograft which was easy clinical use and unlimited amount. Tent-pole is one of the bone augmentation techniques for horizontal bone deficiency augmentation. The screws used acts as a roof maintaining a space for particle grafts and stabilize the materials by preventing collapse of the membrane. The growth factors in I-prf accelerate the vascularization of the area. In addition, I-prf provides the ease of application by sticky-bone when mixed with the graft.

The use of combination xenograft and I-prf with tent-pole technique can be an effective treatment approach to increase bone volume before implant placement.

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