

Early Implant Loading in Severely Resorbed Maxilla Using Xenograft, Autograft, and Platelet-Rich Plasma in 97 Patients

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Purpose: We studied the reconstruction of the maxilla with the simultaneous placement of International Team for Implantology (ITI) implants with the combined use of a small amount of intraoral autogenous bone providing the necessary viable stem cells, and a larger amount of xenogenic bone used as a scaffold and a purely autologous platelet concentrate providing the growth factors for optimal bone formation.

Patients and Methods: Ninety-seven consecutive patients, 57 females and 40 males, with severe maxillary atrophy necessitating bone grafting for implant and fixed bridge reconstruction were treated between 2001 and 2003. A total of 314 implants ITI sand-blasted large-grit acid-etched type were placed simultaneously in the anterior, posterior or both parts of the maxilla.

Results: Of all the cases, 97.8% healed uneventfully with excellent hard and soft tissues healing. Bone maturation was excellent at 3 months as seen on x-rays and CAT scans.

Conclusions: The use of autologous platelet concentrate combined with autogenous and xenogenous grafts allowed fast soft and hard tissue healing.

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