Ridge augmentation and implant placement to enhance esthetic in implant dentistry

“What most impressed me about this product was the handling property and the fast integration.”

Patient:
Female
18 years old

Due to the patient’s age, an orthopedist’s opinion was obtained before placing the implant to confirm that the patient had achieved full growth.

Clinical situation:
Missing central incisor due to trauma in childhood. Patient is under orthodontic treatment.

Surgical solution:
Implant placement (NobelActive 3.5 x 13 mm) with simultaneous bone augmentation using creos xenoprotect and creos xenogain (small granules 0.2 - 1.0 mm).

Restorative solution:
NobelProcera Zirconia Abutment

Surgery date:
Ridge augmentation: March 3, 2016
Prosthetic restoration: August 31, 2016

Total treatment time:
Six months
Pre-operative situation

Occlusal view. Missing tooth 21 with horizontal ridge deficiency.

Case courtesy of Dr. Silva, Portugal
Flap elevation.

Alveolar ridge exposed showing horizontal and vertical bone loss.

Case courtesy of Dr. Silva, Portugal
Implant placement and membrane fixation

Placement of a NobelActive 3.5 x 13 mm implant with the manual surgical driver to better control placement and position.

creos xenoprotect fixation with titanium pins to stabilize the membrane.

Case courtesy of Dr. Silva, Portugal
Augmentation of bony defect over the implant

Placement of creos xenogain to augment horizontal and vertical component of alveolar ridge defect.

Case courtesy of Dr. Silva, Portugal
Flap suturing and provisionalization

Primary closure using tension-free PTFE and PGA sutures.

Provisional with orthodontic anchorage.

Case courtesy of Dr. Silva, Portugal
Implant uncovering

Implant uncovering 18 weeks after surgery and placement of temporary abutment.

Usage of polycarbonate crownshell to create temporary crown on implant.

Case courtesy of Dr. Silva, Portugal
Fabrication of the temporary crown

Confirming ideal position of the implant for the screw-retained temporary crown.

Creating an optimal emergency profile and polishing of the temporary crown.

Case courtesy of Dr. Silva, Portugal
Use of a temporary crown for soft tissue contouring

Placement of the provisional crown with minimal compression of the soft tissue.

Final restoration with light soft tissue compression.

Case courtesy of Dr. Silva, Portugal
Final restoration

Final restoration with adequate esthetic result.

Case courtesy of Dr. Silva, Portugal