CLINICAL CASE



Step-by-step digitally planned esthetic restoration

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Patient

Female, 43

Clinical situation

loose frontal incisor, bit dislocated over time

Diagnosis

vertical root fracture with cast metal post and PFM crown on upper left central incisor

Surgical solution

NobelActive® NP

Restorative solution

Temporary: Temporary Snap Abutment and TempShell Final: NobelProcera® ASC Abutment with e.max Ceram veneering and thin feldspatic veneers on 12,11, 22 FDI

Surgery date

Dec 10 / 2016

Final prosthetic delivery Jun 21 / 2017

Total treatment time 6 months

Patient with vertically fractured root of an upper central incisor underwent digital planning and immediate narrow platform implant placement in the fresh extraction socket. Connective tissue graft was made to achieve optimal result.



Visible dislocation of upper left central incisor, creating esthetic and functional problems

Initial clinical planning Surgical procedure Courter of Dr. Nikolo Vasilic





Intraoral pre-treatment situation

Intraoral pre-treatment situation - lateral view

Initial clinicalTreatmentSurgicalRestorativeOutcomesituationplanningprocedureprocedureprocedure





(CB)CT image of the full arch

Bimaxillary intraoral scan with digitally removed upper-left central incisor

Initial clinicalTreatmentSurgicalRestorativeOutcomesituationplanningprocedureprocedureprocedure

SmartFusion of a (CB)CT scan and intraoral scans in NobelClinician® software

SmartSetup – a digital wax-up proposed by the sofware of upper left central incisor in NobelClinician® software







Courtesy of Dr. Igor Ristić and Dr. Nikola Vasilic Courtesy of Dr. Igor Ristić and Dr. Nikola Vasilic

Courtesy of Dr Pistić and Dr. Nikola Vasilic Courtesy and Dr. Nikola Vasilic

Analysis of sagittal aspect of tooth, soft tissues and bone



Digital position of implant in planning phase, Temporary Snap Abutment included





Digital design of surgical template in NobelClinician® software

Printed NobelGuide® template ready for surgical procedure

Initial clinical Trea	tment	Surgical	Restorative	Outcome
situation plan	ning	procedure	procedure	



Digitally designed TempShell in DTX Studio™ design software

TempShell milled in local dental laboratory, made from PMMA





Intrasulcular incision

Forceps adapted to the crown for efficient luxation of the tooth

Case courtesy of Dr. Igor Ristić and Dr. Nikola Vasilic 11/37



Atraumatic removal of the remaining root structures

Cleaning up of the alveolar socket, removing all granulation tissues





Try-in of the surgical template intraorally – occlusal view

Try-in of the surgical template intraorally - frontal view





Guided Twist Drill (10+) 7-13 mm, Ø 2 mm

Initial drilling using Guided Twist Drill*

* As this was a case with immediate implant placement in an extraction site, the Screw Tap was not used, due to the size of the alveo<u>lar socket</u>



Courtesy of Dr. Igor Ristić and Dr. Nikola Vas

NobelActive[®] NP 15mm

Implant insertion using the NobelGuide® surgical template



Courtesy of Dr. Igor Ristić and Dr. Niko

Courtesy of Dr. Igor Ristić and Dr. Nikola Vasi

Courtesy of Dr. Igor Ristić and Dr. Nik

Final implant positioning

Verification of implant position according to the surgical template



Harvesting of the connective tissue graft from tuberosity

Connective tissue graft





Try-in of the TempShell – vestibular view

Try-in of the TempShell – vestibular view

Treatment planning

Surgical procedure Restorative procedure Outcome



Extraoral picture of the Temporary Snap Abutment Intraoral pictures after the Temporary Snap Abutment try-in

Treatment planning

Surgical procedure Restorative procedure Outcome





Intraoral position of Temporary Snap Abutment is as previously planned

Planning position of Temporary Snap Abutment

Case courtesy of Dr. Igor Ristić and Dr. Nikola Vasilic 22/37



Shortening of the Temporary Snap Abutment

Treatment planning

Surgical procedure Restorative procedure Outcome



Loading of light cure material for TempShell relining

Positioning of the TempShell

Light curing and setting in place of TempShell on the Temporary Snap Abutment



Courtesy of Dr. Igor Ristić and Dr. Nikola Vasilic

Temporary Snap Abutment in TempShell after polymerization in right position

Extraoral final contouring of emergence profile on temporary crown



Finishing and polishing of emergence profile

Removing wings for final placement of TempShell



Finalizing Temporary Snap Abutment for fixation

Drilling the screw access hole with Apical Drill

Treatment planning

Surgical procedure Restorative procedure Outcome



Widening the screw access hole with a diamond burr

Placing of temporary crown

Treatment planning

Surgical procedure Restorative procedure

Outcome





Courtesy of Dr. Igor Ristić and Dr. Nikola Vasilic

Courtesy of Dr. Igor Ristić and Dr. Nikola Vasilic

Torque value is 15 Ncm for Temporary Snap Abutment

Immediate postoperative situation with temporary crown

Treatment planning

Surgical procedure

Restorative procedure

Outcome



Soft tissue final re-shaping prior to impression procedure

Minimal preparation of surrounding teeth

Individualized impression coping prior to impression procedure

Initial clinicalTreatmentSurgicalRestorativeOutcomesituationplanningprocedureprocedure



NobelProcera® ASC Abutment and veneers on model

Restorations on model, palatal view

Individualized NobelProcera® ASC Abutment in zirconia veneered with e.max Ceram

Case courtesy of Dr. Igor Ristić and Dr. Nikola Vasilic 31/37

Treatment planning

Surgical procedure

Restorative procedure

Outcome



Final torque of Individualized NobelProcera® ASC Abutment is 35 Ncm Implant restoration immediately after tightening

Rest of the restorations bonded on teeth. Screw access hole filled with Teflon™ and light cured composite

Case courtesy of Dr. Igor Ristić and Dr. Nikola Vasilic 32/37



Postoperative intraoral X-ray

Superimpositioning of the digital planning as previously done in NobelClinician® software

Treatment planning

Surgical procedure Restorative procedure

Outcome



Mock-up for finalization of the treatment. Veneers on upper central right and lateral incisors and upper left lateral incisor and canine are planned Intraoral view of the mock-up

Lateral mock-up view



Intraoral view of finished NobelProcera® ASC Abutment Perfect blend of restorative materials with natural tissues, immediate postoperative photo



X-ray with implant and restoration after final prosthetic delivery

Final smile of the satisfied patient

Case courtesy of Igor Ristić and Nikola Vasilic



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