Four implants on upper incisors – digital workflow

Solutions featured:
3Shape TRIOS
3Shape Dental System
3Shape Implant Studio
Case information
Female patient aged 62. The patient is healthy but with failing dentition in the upper maxilla, 11, 21, 12, 22. The patient would like to improve her functionality and oral esthetics and has requested a solution with minimal pain. She would like a fixed bridge.

Treatment plan
The plan is to remove teeth 11, 21, 12, 22. Immediate placement of two BLT Straumann implants with a guided temporary bridge from 12 to 22. Two more BLT non-guided implants will be used for the definitive restoration. The intended final outcome is fixed crowns on the four placed implants.

Treatment description
The patient at consultation has a failing dentition in the upper maxilla, 11, 21, 12, 22 and an old fixed bridge with gingival retraction and metal exposure. Her smile is poor and disappointing. She has requested a fixed temporary bridge and does not want to wear a removable prosthesis.

The patient is intraorally scanned using 3Shape TRIOS 3. The IO scans are brought into 3Shape Implant Studio for planning. A CBCT is also taken. The CBCT and surface scans are merged in Implant Studio and used to start the implant and guided bridge planning.
After a correct alignment of the scans, a virtual extraction of the teeth is performed.

The provisional bridge is designed in Implant Studio based on prosthetics.
We select two BLT implants in position 12 and 22. These are placed virtually in the bone following the esthetic path and bridge outcome previously designed in 3Shape Implant Studio.

The surgical guide is designed.
The case is closed and sent to Dental System for the final design of emergence profiles and esthetics of the provisional bridge.

The guide is printed and the temporary bridge milled out a disc of Telio CAD.
Surgery is performed under local anesthesia and IV sedation, removing the selected teeth and placing the two guided implants and two more non-guided.

Sites are closed with a closure screw and the ISQ levels measured with the Ostell showing enough levels for immediate function.
Temporary milled Guided Bridge screwed into place. The patient is able to leave with temporary prosthetics at the day of surgery.

After three months, an intraoral scan is performed on all four implants and emergence profile. Single crowns are designed, produced and delivered. Four crowns for each implant placed.

Patient is very satisfied with her new smile.
About Dr. Luis Cuadrado

Luis Cuadrado is a specialist in stomatology, plastic, reconstructive and aesthetic, He is the Director of Clinical Training Center and i2 Implantology in Madrid, where he carries out oral implantology, extraoral and reconstructive surgery. He has given over 200 courses at different conferences both national and international and written more than 100 scientific articles. He is also a director of a postgraduate training program in implantology at UDIMA. Further, he is a lecturer at CGCOE.

Dr. Cuadrado discusses the benefits of digital technology for he and his patients

There are many benefits to using the digital workflow. For the professional, it enables us to deliver immediate function and esthetics. The procedure is less invasive, less painful and faster. For me, I believe that there is a major difference in quality and speed as well as bringing more joy and pride to my work. A happy patient means success and helps to build confidence in my team.

For patient, the benefits of the digital workflow are an immediate functional restoration with a non-invasive procedure that increases patient acceptance.

About 3Shape

3Shape is changing dentistry together with dental professionals across the world by developing innovations that provide superior dental care for patients. Our portfolio of 3D scanners and CAD/CAM software solutions for the dental industry includes the multiple award-winning 3Shape TRIOS® intraoral scanner, the 3Shape X1® CBCT scanner, as well as market-leading scanning and design software solutions for both dental practices and labs.

Two graduate students founded 3Shape in Denmark’s capital in the year 2000. Today, 3Shape employees serve customers in over 100 countries from 3Shape offices around the world. 3Shape’s products and innovations continue to challenge traditional methods, enabling dental professionals to treat more patients more effectively.